



JUNE 11, 2018

# THE DRONE AGE

*A Special Report*

One of 958  
illuminated drones  
above Folsom, Calif.,  
at 8:31 p.m. on May 3

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*A Special Report*

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**DETAILS, PAGE 3**



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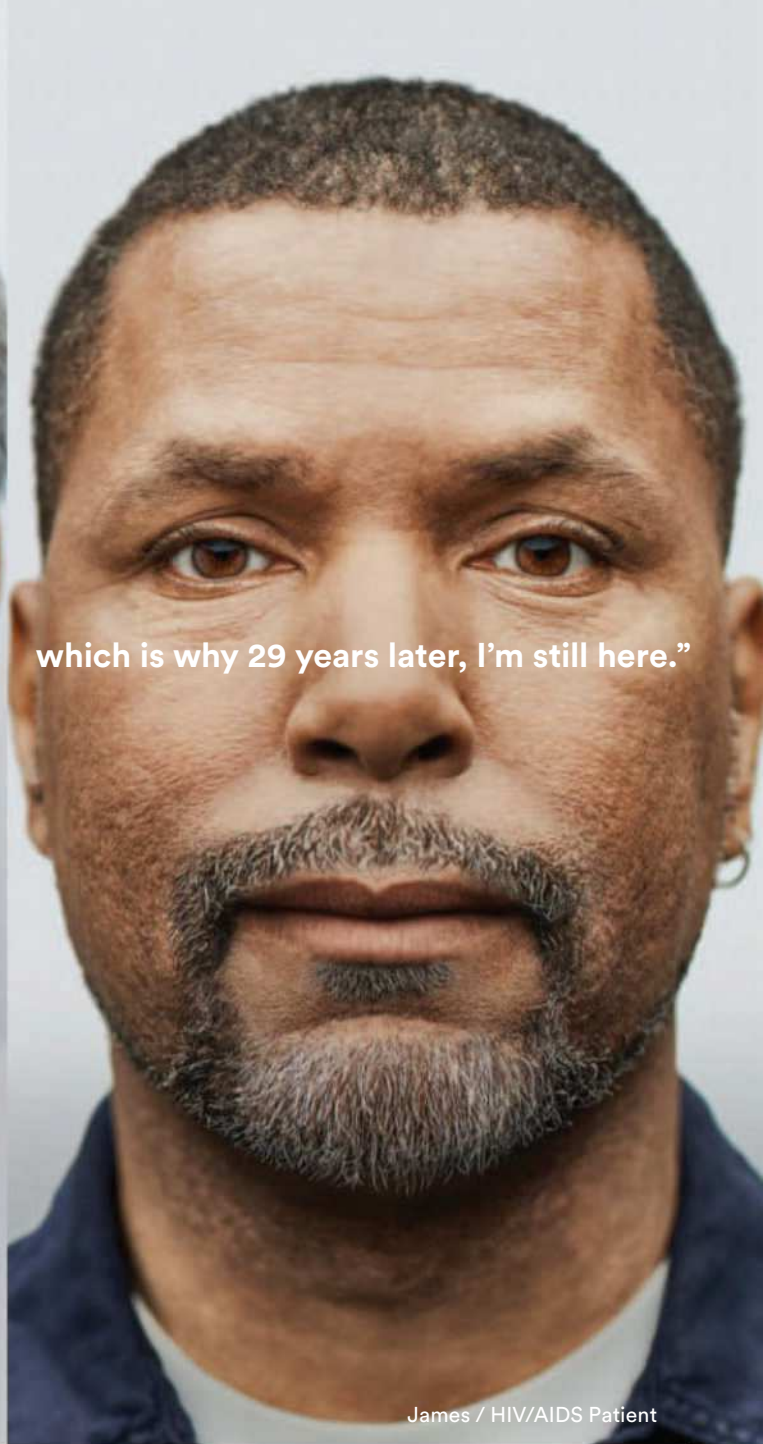






*"I keep pursuing new HIV/AIDS treatments*

Brian / HIV/AIDS Researcher



*which is why 29 years later, I'm still here."*

James / HIV/AIDS Patient

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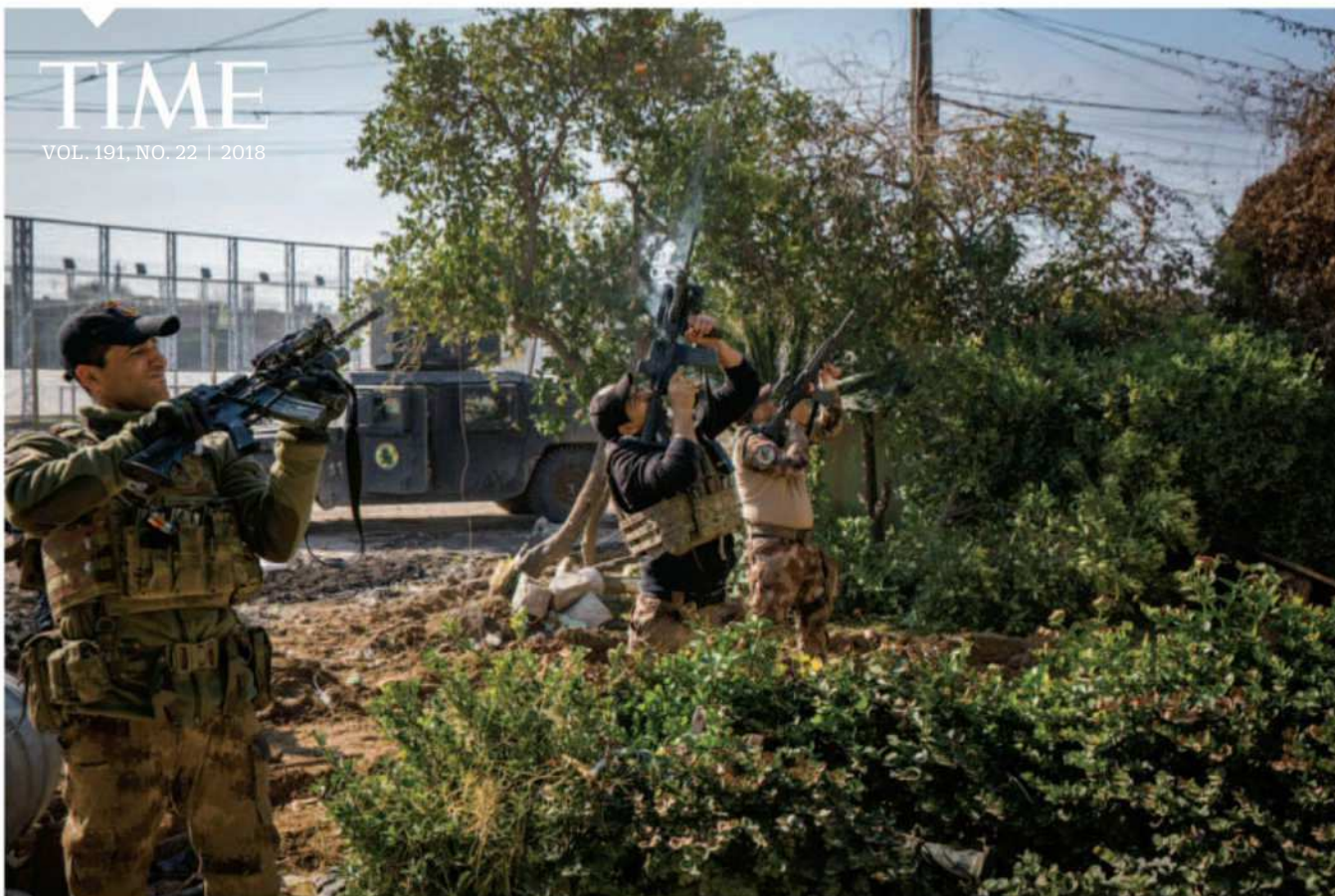
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^ **Iraqi soldiers try  
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January 2017**

*Photograph by  
Ivor Prickett—  
The New York  
Times/Redux*

**ON THE COVER:**  
*Drone video still  
by TIME*



# Conversation

BEHIND THE SCENES

## The making of the cover

TO CREATE THE FIRST *TIME* COVER shot by a drone, we worked with Intel's Drone Light Show team, Astraeus Aerial Cinema Systems and L.A. Drones—plus 958 drones set to display a precise shade of red, and another one to hold a camera in the air at just the right angle. The result was one of the biggest drone shows ever produced in the U.S., so of course it drew some attention. One Folsom, Calif., resident interviewed by a local news reporter recounted, “Up in the sky, I saw the future.”

*The cover in action (top), in Folsom, Calif., on May 2. Members of the Intel Drone Light Show team test their drones on May 3 (bottom left). That same day, Astraeus Aerial's second pilot Travis Samson and pilot in command Corey Gineris inspect the “Big Drone” used to shoot the video and image. >*



### SPONSOR MESSAGE

#### Intel on innovation

This year, Intel marks its 50th anniversary. As I reflect on our past, two themes that consistently emerge are the accelerated pace of innovation, and how that innovation is changing every facet of how we live today. Technology is at the heart of the smart and connected world. And the advances in technology are happening at lightning speed, unveiling a future that might have seemed like science fiction just a few years ago. From autonomous flying cars to supercomputers that will solve the world's biggest problems—it's all happening within our lifetimes.

Of all the technologies that

Intel has helped to pioneer, drones are among my favorites. So many Intel technologies have had a meaningful impact, inspiring innovation and advancing how we live, work and communicate. But drones can literally change how we see and access the world around us. And we've only tapped the surface of what drones can do.

These unmanned aerial vehicles can generate an enormous amount of high-resolution images and video. Connected products and solutions, fueled by this data, are transforming businesses and industries. In the world of entertainment, Intel has taken the wonders of drone technology and created magic with aerial

light shows unlike any fireworks you've ever seen. If you watched the opening ceremony of the Winter Olympics in PyeongChang, you witnessed our Guinness World Record light show, featuring 1,218 drones flying in perfect synchronicity, creating colorful, mesmerizing moving images in the sky above the stadium.

Intel's commitment to advancing drone technology is why we're proud to partner with *TIME* to bring you this special drone issue and to celebrate the amazing innovations at the intersection of technology and flight. —Brian Krzanich, CEO of Intel, the presenting partner of *TIME*'s drone issue and provider of this issue



#### AUGMENTED REALITY

Download the LIFE VR app, click on the Drone AR Experience and scan the cover to view the Intel Shooting Star™ light show and the Intel Falcon™ 8+.

► For more, including a behind-the-scenes look at the cover, visit [time.com/drones](http://time.com/drones)

Letters should include the writer's full name, address and home telephone and may be edited for purposes of clarity and space

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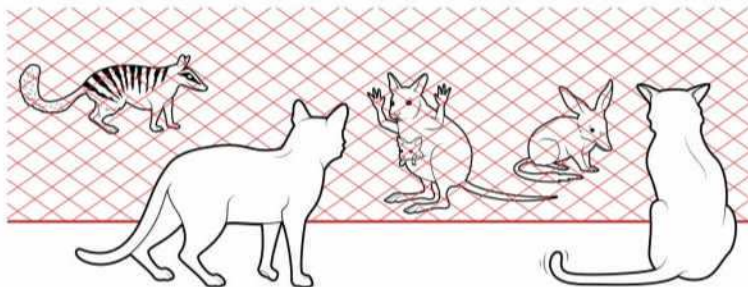
Amount paid by Spangler Candy Company (maker of Dum-Dum lollipops and Circus Peanuts) for New England Confectionery Co. (Necco Wafers and Mary Janes) at a federal bankruptcy auction

**‘I’m getting darn good at uphill battles.’**

**LUPE VALDEZ,**  
Democratic nominee for Texas governor, after becoming the first Latina and first openly gay person nominated by a major party for that job

**27**

Length, in miles, of a cat-proof fence recently completed in central Australia; one of the largest of its kind in the world, it’s designed to protect endangered marsupials from predatory felines



**‘MY ACTIONS ON THAT DAY, IN MY MIND, WERE THE ONLY ACCEPTABLE ACTIONS.’**

**JASON SEAMAN,**  
science teacher, reflecting on lunging at an armed student at Noblesville West Middle School in Noblesville, Ind., on May 25; Seaman was shot three times, and a student was wounded

**‘We can find a way, no matter how squeamish people are.’**

**NILOFER SABA AZAD,**  
oncologist, after the American Cancer Society announced that patients should get screened for colorectal cancers starting at age 45

**‘EVERYBODY PLAYS GAMES.’**

**DONALD TRUMP,**  
U.S. President, regarding the on-again, off-again nature of a planned summit with North Korea

**1 million**

Approximate number of French smokers who quit in the past year, according to a study by France’s Public Health Agency; the decline appears to show that some recent antismoking measures, like price hikes, could be working

**Pompeo**  
Actor Ellen Pompeo of *Grey’s Anatomy* has purse stolen on Italian vacation



**Pompeii**  
Archaeologists make rare find at site of ancient volcanic eruption, unearthing the skeleton of a fleeing man

**‘The European Union is in an existential crisis. Everything that could go wrong has gone wrong.’**

**GEORGE SOROS,**  
investor, predicting “another major financial crisis,” while at the annual meeting of the European Council on Foreign Relations in Paris



# The Brief

A man in a red floral shirt is pulling a large blue curtain on a television set. The word "ROSEANNE" is written in large, red, bubbly letters on the curtain. In the background, a set with a doorway and various props is visible.

DIVIDED  
WE FALL

What Roseanne  
Barr revived was  
not the past ABC  
had in mind

ROSEANNE

## INSIDE

A RUNOFF ELECTION LEAVES  
COLOMBIA FACING A DECISION  
BETWEEN RIGHT AND LEFT

TWO U.S. POLICIES ON  
MIGRANT CHILDREN CREATE  
CONTROVERSY AND CONFUSION

JESSE EISENBERG REMEMBERS  
PHILIP ROTH'S EXTRAORDINARY  
EYE FOR DETAIL

# TheBrief Opener

NATION

## Roseanne Barr meets the new world

By Karl Vick

**W**HEN ROSEANNE RETURNED TO PRIME-time television in March, it was only natural that the title character would be a Trump voter. The Republican won the presidency on the hopes of the small towns and working-class families the iconic ABC series brought to such warm and funny life through nine seasons that ended, the first time, in 1997. A straight talker like Roseanne Conner almost prefigured the candidate who used his very first presidential debate to distinguish himself from ordinary politicians: “When they call, I give. And you know what? When I need something from them, two years later, three years later, I call them. They are there for me.”

There was even talk that *Roseanne*’s revival could bridge the chasms that opened in society in the two decades it was off the air. That was the stated hope of ABC, and the cast. “I think the uniqueness is, television has become splintered and fractured a little bit like our country has,” said Michael Fishman, who played Roseanne’s son D.J., in an interview with *Entertainment Weekly*. “There’s something in the show for everybody.”

Not quite. When the end came this time, on May 29, it was because its namesake drove a spike into the body politic. A Trump supporter in real life, Barr posted a blatantly racist tweet likening Valerie Jarrett, an African-American senior adviser to former President Obama, to an ape. Within hours, ABC Entertainment president Channing Dungey delivered the network’s verdict in a single, stinging line: “Roseanne’s Twitter statement is abhorrent, repugnant and inconsistent with our values, and we have decided to cancel her show.”

That Trump’s supporters include racists is hardly news. His candidacy was embraced by fringe elements ranging from former Ku Klux Klan Grand Wizard David Duke to the white supremacists who call themselves “alt right.” Before running, Trump prepared the ground by championing the “birther” issue; speciously questioning Obama’s American birth was widely understood as a dog whistle intended to undermine the legitimacy of the country’s first African-American President.

For those who understand Trump’s upset election as a reaction to Obama’s presidency, racism is part of the explanation. Among the studies detecting racial bias in Trump’s base was a pre-election Reuters poll that found Trump supporters more likely than supporters of other candidates

to describe blacks as “violent” or “lazy.” *Proceedings of the National Academy of Sciences* published a study in April crediting Trump’s victory not to pocketbook concerns—the sort Barr cited in interviews—but, rather, to “issues that threaten white Americans’ sense of dominant group status.”

**NONE OF WHICH** means any given Trump supporter is racist, or associates any previous greatness of America with the ignoble elements that nostalgia glosses over. But Barr sure filled the bill. Perhaps in the 1990s her provocations could be read as ferocious ownership of a persona (see: grabbing her crotch and spitting on the ground after boos answered her butchering of the national anthem before a baseball game). But by the time ABC greenlighted the show last year, Barr’s Twitter feed was a minefield of crank theories and overt racism. In a 2013 post she later deleted, Barr called Obama National Security Adviser Susan Rice “a man with big swinging ape balls.” A Hillary Clinton aide was “a filthy nazi whore.”

The revival of *Roseanne*, however, was a massive hit, and ABC ordered a second season after the first episode. Trump claimed it as a victory. “I called her yesterday. Look at her ratings!” the President crowed at an Ohio rally after the premiere. “Over 18 million people, and it was about us!”

But if social media lets everyone sound off, it also makes it much easier to circle the wagons in response. Barr posted her Jarrett slur the same day that Starbucks closed its U.S. stores for mandatory racial-bias training. In the 21 years between seasons 9 and 10, major corporations emerged as enforcers of inclusion, punishing states for excluding transgender teens from public toilets or failing to support same-sex marriages. It’s not only fear of boycotts driving the progressive stands, it’s also the imperative of recruiting: highly skilled, creative employees can choose where they work. How much more attractive an employer is Sanofi after answering Barr’s post blaming Ambien for her rants with a post of its own: “racism is not a known side effect of any Sanofi medication?”

ABC was on track to pocket perhaps \$60 million next year off the revival, but at what cost? The network now competes not with two main rival networks but a dozen streaming services for the writers and showrunners who can put together a series that stands apart the way *Roseanne* did, especially the first time around. But by the evening of May 29, the revival was utterly and completely banished from every platform: YouTube, ABC Go, the works. On PlayStation Vue, one of the ways to watch live TV in our splintered new world, the only evidence that remained was a vestigial listing on the digitized prime-time grid for 8 p.m. E.T.: “Season 10, Episode 3: Roseanne Gets the Chair.” □

**‘i feel bad  
for POTUS-  
he goes thru  
this every  
single day.’**

ROSEANNE BARR,  
via Twitter







*Iván Duque and his vice-presidential pick, Marta Lucía Ramírez, celebrate election success on May 27*

#### THE BULLETIN

## The right-wing newcomer poised to take power in Colombia

**IVÁN DUQUE IS ON TRACK TO SUCCEED** Juan Manuel Santos as President of Colombia, after winning national elections on May 27. But with 39% of the vote, the right-wing Senator did not secure a large enough majority to avoid a runoff battle on June 17 with Gustavo Petro, a leftist former guerrilla, who won 25%. Now Colombia faces a stark choice between hard left and hard right:

**FRESH FACE** Just 41, the former lawyer has spent much of his adult life in the U.S., studying at Georgetown University and working at the Inter-American Development Bank in Washington, until former President Álvaro Uribe asked him to return to run for Senator in 2014. With just one term under his belt, Duque is seen as inexperienced but also free from the corruption allegations that dog Colombia's political elite. He has been nicknamed the Colombian Macron by Spanish-language media for his perceived similarity to the upstart President of France.

**DEAL BREAKER** Duque gained notoriety for fierce attacks on Colombia's 2016 peace agreement with Marxist guerrillas the Revolutionary Armed Forces of Colombia (FARC). The deal ended 52 years of civil war, which left 220,000 dead and displaced up to 7 million, but many felt it was too lenient on the militant group. Duque wants to scrap key parts of the agreement, including a partial amnesty for crimes committed by the FARC.

**LEFT BEHIND** Analysts are not ruling out a second-round victory for Petro, whose railing against wealth inequality won him more votes than any other left-wing candidate in Colombian history. But Duque's market-friendly stance and promises to cut corporate taxes appeal to those in the center worried by the country's sluggish economic growth. And with the economic crisis in neighboring Venezuela having sent more than a million migrants pouring into Colombia in search of jobs and food, the country is widely expected to follow Argentina and Brazil in a Latin American rejection of the populist left. —CIARA NUGENT

#### NEWS TICKER

### E.U. proposes plastic ban to save the seas

The European Union proposed **a ban on several single-use plastic items**, including straws, cotton swabs and drink stirrers, to help protect marine life and stop trash from spoiling beaches. The May 28 proposal must be approved by all E.U. member states before it is put into action.

### Study finds Hurricane Maria killed 4,600

A new study published May 29 estimates that Hurricane Maria killed at least 4,645 people in Puerto Rico last year—70 times the official toll of 64. Researchers surveyed 3,300 households to calculate a death rate that suggested **Maria was the deadliest natural disaster to hit the U.S. in a century.**

### Malian hero promised French citizenship

A migrant from Mali was offered French citizenship and a job as a firefighter by President Emmanuel Macron after **he scaled an apartment building to save a 4-year-old** dangling from a balcony on May 26. When video of the feat went viral, Mamoudou Gassama, 22, was nicknamed Spider-Man.



## NEWS TICKER

### NFL announces protest ban

The National Football League's team owners passed a policy May 23 **imposing fines on teams whose players do not stand during the national anthem.** Players can opt to stay in the locker room during the pregame ceremony. The players' union criticized the new rule and said it had not been consulted on the change.

### Search for MH 370 ends after 4 years

The **search for the missing Malaysian Airlines flight MH 370 has officially been brought to an end**, even though the plane has not been found. The Boeing 777 disappeared over the South Indian Ocean on March 8, 2014, with 239 people on board, and repeated searches have failed to locate it.

### Ruling: Trump can't block Twitter users

President Donald Trump **violated the First Amendment when he or an aide blocked seven Twitter users** because they disagreed with his views, a federal judge in New York ruled on May 23. The judge said, "No government official—including the President—is above the law."

## GOOD QUESTION

### Did the Trump Administration lose immigrant children?

THE OUTRAGE OVER THE DUAL NEWS STORIES was unsurprising. Reports spread that migrant children were being separated from their families at the U.S. border and that Donald Trump's Administration had lost track of nearly 1,500 kids. That led many on social media to use hashtags like #WhereAreTheChildren and #MissingChildren to demand action. But amid the viral news, confusion also spread and led many to conflate the stories.

Recent attention to the issue began at a Senate subcommittee hearing in April, when Steven Wagner, an official at the Department of Health and Human Services (HHS), testified that his agency had checked up on 7,635 migrant children who crossed the U.S.-Mexico border on their own and were then placed with adult sponsors in the U.S. The agency found that 6,075 children were still living with their sponsor, 28 had run away, five had been deported and 52 were living with someone else. The rest—the 1,475 lost children—were unaccounted for.

The children in that tally arrived in the U.S. without their parents, so they were not separated from their families by federal officials. That doesn't mean there aren't real concerns about their safety; abusive homes and human traffickers are just two of the worries. It's also possible that sponsors may choose not to answer calls from federal

officials to avoid deportation—for the children or themselves. Either way, HHS has argued it is not legally responsible for what happens to the children after they leave its custody. But Senators from both parties have called on the agency to improve its monitoring. "These kids, regardless of their immigration status, deserve to be treated properly, not abused or trafficked," Republican Senator Rob Portman told the subcommittee in April.

The issue of children being taken from their parents as they cross the border into the U.S. is also real, but separate. Attorney General Jeff Sessions announced a new "zero tolerance" policy on May 7 that includes attempting to prosecute every single person who enters the country illegally. This means children who cross the border with their parents are separated from their families as the adults are charged with a crime. "If you don't want your child to be separated, then don't bring them across the border illegally," Sessions said when announcing the policy.

This is likely where some of the confusion originated, as hundreds of children have been separated from their parents at the border. President Trump made things more heated when he tweeted May 26 asking supporters to pressure Democrats to "end the horrible law that separates children from there [sic] parents once they cross the Border into the U.S." There is no law requiring separation, and the zero-tolerance policy came from his own Administration. But if HHS can't keep track of children it was already responsible for, some fear the new policy will make things worse. —ABIGAIL ABRAMS

## POSTAGE

### Special delivery

The U.S. Postal Service is introducing scratch-and-sniff Forever stamps, with images of ice pops, in June. Here, other unusual stamps from around the world. —A. A.

#### CORK STAMP

Portugal, the world's largest cork producer, issued the world's first stamp made entirely from cork in 2007 to honor the country's famed industry. The 230,000 stamps held a value of one euro each.



#### CHOCOLATE STAMP

In 2013, Belgium issued stamps that smelled, looked and tasted chocolaty. A team of experts from Belgium, Germany, the Netherlands and Switzerland created the delicious stamps.

#### ANIMATED STAMP

Canada Post issued a series of stamps in 2009 that seemed to move. They used technology called Motionstamp to replay famous hockey goals in honor of the 100th anniversary of the Montreal Canadiens.

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# Milestones

## DIED

**Alan Bean**, the fourth person to walk on the moon, on May 26 at 86. After his NASA career, Bean became a painter, chronicling the moon landings in his art.

## REPEALED

**Ireland's constitutional amendment banning abortion**, by voters in a May 25 referendum. The landslide result was seen as a sharp rebuke to the Catholic Church.

## RESIGNED

**Missouri Governor Eric Greitens**, on May 29, amid investigations over alleged sexual misconduct and data tampering. He denied criminal wrongdoing but said his resignation would take effect June 1.

## PLANNED

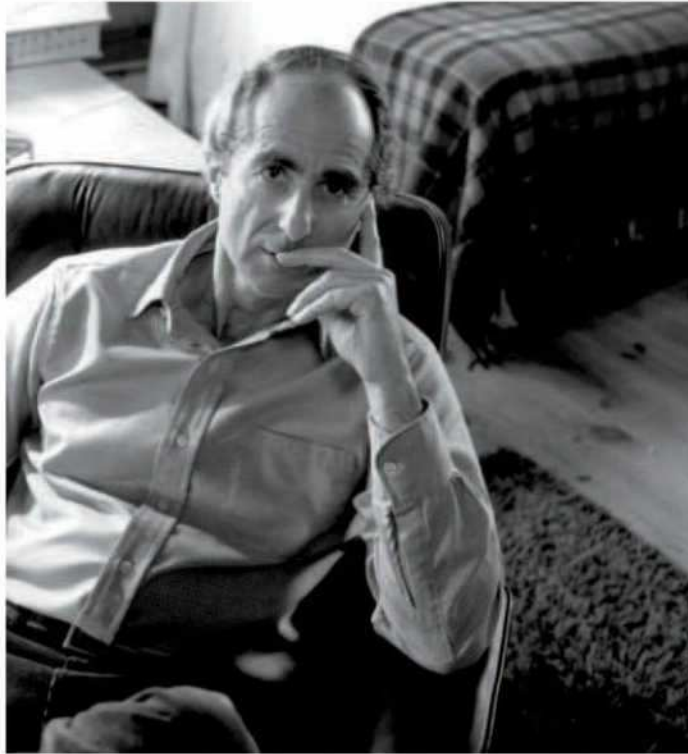
The **slaughter of some 150,000 cows** in New Zealand, in an attempt to eliminate a disease-causing bacterium. If the plan works, it will be the first time an infected country eliminates the pathogen.

## STAGED

The death of Russian journalist **Arkady Babchenko**, a critic of Moscow who was reported to have been shot on May 29 but reappeared on May 30. Ukrainian officials said the fake death was meant to catch real killers.

## RETIRED

Race car driver **Danica Patrick**, 36, the only woman to lead in the Indy 500 and the Daytona 500 and the first to win an IndyCar race, after her final race on May 27.



Novels like Portnoy's Complaint established Roth, pictured in 1990, as an intimate portraitist of Jewish-American experience

## DIED

### **Philip Roth** *Literary witness to interior life*

By Jesse Eisenberg

IT'S PROBABLY FOR THE BEST THAT PHILIP ROTH MADE YOU forget how hard he worked. Although he produced an astonishing canon chronicling life in 20th century America, Roth—who died on May 22 at 85—wrote in such a personal way that it gave the false impression of effortlessness. He made the extreme relatable, the tragic funny and the foreign familiar. Even his alternative history *The Plot Against America* reads like an intimate coming of age.

However, a passage in *Patrimony*, Roth's 1991 nonfiction account of his dying father, reveals his extraordinary work ethic. When Roth sneaks into his father's bathroom, stalling before giving his father the grim news of a brain tumor, he takes stock of the shelf above the toilet. He carefully notes his father's medications. He lists the "Polident, Vaseline, Ascriptin, his boxes of tissues, Q-tips, and absorbent cotton." He describes a pale blue porcelain shaving mug, with its inscription, date and floral pattern. Roth wants us to see a nervous son, pacing the bathroom tiles, but it's impossible not to also see a writer, scribbling notes. *Patrimony* is a portrait of a son confronting his father's death, but to me, it's an equally clear portrait of a writer hard at work—preserving, for himself as he had done for so many characters during his decades-long career, the moments of a life.

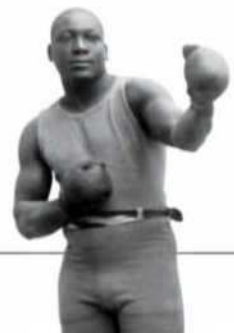
**Eisenberg** is an actor and a playwright and the author of the story collection *Bream Gives Me Hiccups: And Other Stories*

## PARDONED

### **Jack Johnson** *Boxing champ*

JACK JOHNSON, WHO IN 1908 became the first African-American boxer to win the heavyweight championship of the world, flaunted his defiance of bigotry. "I am not a slave," Johnson said in 1912. "I have the right to choose who my mate shall be without the dictation of any man." The U.S. government saw it differently. In 1913, after crossing state lines with a white woman, he was convicted under the anti-trafficking law known as the White Slave Traffic Act. A prosecutor mentioned Johnson's "misfortune to be the foremost example of the evil in permitting the intermarriage of whites and blacks." He ended up serving a 10-month prison term.

On May 24, more than 70 years after Johnson's death, President Trump pardoned him. Senator John McCain, Massachusetts Senator Edward Kennedy and many boxing luminaries had long supported clemency for Johnson; former champ Lennox Lewis and *Rocky* creator Sylvester Stallone joined Trump at the Oval Office signing ceremony. Still, Johnson is a flawed icon, and evidence that he was violent toward women cannot be struck from his record. But the President's correction of this century-old racial injustice felt long overdue. —SEAN GREGORY









# LightBox

## Protest aisle

At a “die-in” at a Publix supermarket in Coral Springs, Fla., on May 25, Patricia Oliver, center, holds a picture of her son Joaquin, who was killed in the February mass shooting at Marjory Stoneman Douglas High School in nearby Parkland. The protest was arranged by survivor and gun-control activist David Hogg to call attention to the chain’s support for Florida gubernatorial candidate Adam Putnam, who has said he’s “proud” to be a National Rifle Association “sellout.” Moments before the event, Publix announced it would “suspend corporate-funded political contributions.”

*Photograph by Joe Raedle—Getty Images*

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# The View

POLITICS

## THE DETERRENCE DEBATE

By James Stavridis



President Trump and Kim Jong Un's courtship has been nothing if not fickle. And so as the summit over North Korea's nuclear weapons veers from on-again to off-again, the world should consider the thinking of three distinguished U.S. military officers—two of whom just took pivotal posts in these turbulent times. ▶

### INSIDE

KERRY KENNEDY DESCRIBES  
HOW THE LEGACY OF HER  
FATHER STILL RESONATES

ERROL MORRIS TAKES  
ON PRESIDENT TRUMP  
AND UNTRUTHS

THE NEXT ACT IN  
THE HARVEY WEINSTEIN  
ACCUSATIONS

# TheView Opener

I know each of them very well from our decades of service and my time in the Pacific Fleet and as NATO Supreme Commander: General James Mattis, the Secretary of Defense; Admiral Harry Harris, who was officially nominated for U.S. ambassador to South Korea the before day Trump withdrew from the summit with Kim; and Admiral Phil Davidson, Harris' new successor as commander of the vast U.S. Pacific Command. Together, they own the problem of determining how to return the U.S. to full-bore deterrence—and giving the President new options for military strikes if the negotiations fail. What will their counsel be to the mercurial President?

Let's start with Mattis. The decision about what actions the U.S. should take will likely play out in a three-way conversation among him, National Security Adviser John Bolton and the President. Mattis is a thoughtful strategist with a deep sense of history—essentially the opposite of Trump. The President will continue to largely shoot from the hip: he'll ignore both the briefings and intelligence presented to him, and will remain inclined to swing for the fences, if not in a summit, then in some kind of preemptive strike. Mattis will face the challenge of counseling patience, while offering options for sanctions (again); cyber, intelligence and missile defense; perhaps a naval blockade; and even both limited and massive strikes.

Harris, a Japanese American, will be parachuting into high drama. South Korean President Moon Jae-in, who had invested excessively in relationship-building with Kim, will be anxious to heal the wounds inflicted by Trump's calling off the talks. Harris understands why. He knows the Korean War plans better than anyone and grasps exactly how devastating a war on the Korean Peninsula would be. He and his wife Bruni will also be located at ground zero.

The newest member of the senior decision-making group is Admiral Phil Davidson, who is responsible for the entire military structure in the Pacific and a headquarters in Pearl Harbor. He arrives from a strictly Navy job in command of the overall U.S. fleet. However, he is a creative thinker, with deep intellectual capability. He was hand-selected when he was a one-star to build a new diplomatic-operational structure for Afghanistan and Pakistan—an unusual assignment for a Navy admiral, and one so complex, it would have led many to quit. Davidson is close to Harris. Both admirals will be very skeptical of



From left: Admiral Phil Davidson, Admiral Harry Harris and General James Mattis

jumping into a war with North Korea, or even a limited strike (the so-called bloody-nose option). They will support Mattis' caution.

While each of these senior leaders will be part of the ultimate conversation in the Situation Room, the command relationships are complicated. Harris technically reports directly to the President, but in reality communicates through Secretary of State Mike Pompeo (another key player, who will likely take a moderate position). Davidson technically reports directly to the Secretary of Defense, but in reality coordinates and communicates largely through the Chairman of the Joint Chiefs of Staff.

**IN THE END**, though, all of the caution from the military will go through Bolton, who reports only to the President. This will create tension. It is Bolton's job to present these views to Trump with honesty. But it is Bolton's nature to inject his strong and decisive personality into the debate, and he is unlikely to come down on the side of the angels in finding a diplomatic solution.

Everything we know about Bolton would tell us that he will pursue the hard-power answer. He lives in a zero-sum world, in which danger lurks in every dimension; this causes him to overcompensate on the side of military force. (There are times when that makes sense. This is not one.) Because of this organizational structure, paired with this personal tendency, the chance of combat ultimately rises—despite these officers' likely counsel against it. Hopefully, America can find its way toward a diplomatic course, nonetheless. But these officers will need to help develop a nuanced negotiating stance in order to land this crisis without a fight.

*Stavridis was the 16th Supreme Allied Commander at NATO and is dean of the Fletcher School of Law and Diplomacy at Tufts University*

## READING LIST

► Highlights from stories on [time.com/ideas](https://time.com/ideas)

### How it feels to protect the world's most vulnerable people

U.N. peacekeepers—known as Blue Helmets—shared **what it's like to work on the ground in Congo, via a virtual-reality experience.** As U.N. Secretary-General António Guterres explains in an introduction, the personnel are regularly targeted for killing.

### Writing a sermon for the royal wedding

**Bishop Michael Curry describes how he wrote his address** and why he ventured off script. "There's enormous power—both motivational and transformational power—in love," he says. "I picked up that cue and took that to the next step."

### Two different responses to gun deaths

Australia and the U.S. saw mass shootings a mere week apart. The different reactions showed that in Australia, where firearms are heavily regulated, **"teasing out the reasons why a person might use a gun to kill [are] a little easier,"** writes TIME's Belinda Luscombe.



## THE RISK REPORT

# Trade battles between the U.S. and China enter a perilous new phase

By Ian Bremmer



NOT SO LONG AGO, U.S. leaders predicted that economic development and the birth of a middle class in China would inevitably

move that nation toward democracy. Instead, China's leadership has profited from a weaker West. It has seized on opportunities created by European fragmentation and political dysfunction in Washington to offer China as an alternative model of stability and development.

Another mistake by the U.S.: lawmakers doubted that China would ever become technologically innovative. They believed that, like the Soviet Union, China's state-dominated economic system would hit a wall when it came to developing new ideas. Instead, China learned from Soviet mistakes. At first, the state allegedly helped Chinese companies steal ideas that couldn't be developed at home. But now China is investing huge sums in the artificial intelligence, robotics and data-management innovations that will determine tomorrow's balance of power.

China's President Xi Jinping declared in October that the nation must become a technological superpower. He has repeatedly emphasized the need to shed dependence on foreign intellectual property. "Indigenous innovation" and technological self-reliance are now core to China's development strategy. His Made in China 2025 program, backed with huge state subsidies for its tech sector, is central to Xi's vision.

**ON MAY 29**, President Trump launched an offensive against that plan. To protect its national security, the White House said in a statement, the U.S. will restrict investment in and control exports of

"industrially significant technology."

The Trump Administration proposes to slap 25% tariffs on some \$50 billion of Chinese tech imports, including those related to the vaunted Made in China 2025 program. In essence, the battle for the future has been joined.

Trump has been trying to strike a delicate balance in U.S. relations with China, and until now has blown hot and cold on trade. He adopted the tough stance he promised voters while blaming the \$375 billion goods trade deficit on former U.S. Presidents rather than on Beijing. Trump would love to have warmer relations with China, just as he would with Russia. Trump

has praised Xi just as he's repeatedly saluted Russia's Vladimir Putin.

Yet, as with Russia, a variety of actors in Washington have made it tough for Trump to build the China ties he wants. Trump pledged to save ZTE, a large Chinese telecom-equipment maker banned from purchasing U.S. technology for violating sanctions, as an apparent favor to Xi, but was attacked by lawmakers of both parties. Many fear that

Trump fails to see the threat that Chinese tech companies like ZTE and Huawei pose to U.S. national security. Meanwhile, some American companies fear that U.S. trade action will make it tougher for them to do business in China. Trump's own advisers are divided on how to proceed.

Now the voices preaching confrontation with China appear to have won out. Neither side wants a full-blown trade war, but each believes it has a strong negotiating position. Commerce Secretary Wilbur Ross will travel to Beijing for talks on June 2, but it's hard to see how Trump can claim victory without Chinese concessions on tech issues, and it's nearly impossible that Xi will offer him anything of value. This is where the risk of real conflict is most dangerous. □

**It's hard to see how Trump can claim victory without Chinese concessions on tech issues, and it's nearly impossible that Xi will offer him anything of value**

## EDUCATION

# What grads need to hear

By Melinda Gates

This spring is a special one for our family: my daughter will graduate from college just days after my son graduates from high school.

Even when I'm not playing the role of proud mom, I tend to be a fan of commencement season. I like hearing from America's thinkers, doers and builders about their hopes for the next generation.

But this year, I'm looking for something more. I want to know what these speakers plan to do to ensure that the future we'll share has a place in it for every graduate.

It's no secret that the modern American workplace works better for some people than others. There are fewer female leaders of *Fortune* 500 companies than there are ones named James, and African-American and Hispanic women hold less than 5% of jobs in tech.

I hope that this year's commencement speakers will offer concrete plans for changing that. From paid family leave to mentorship programs to recruiting more diverse talent pools, there are many steps employers can take to remove the barriers that threaten graduates' dreams.

Any commencement speaker can encourage young people to live up to their potential. But our graduates deserve more than encouragement; they deserve action.

*Gates is a co-chair of the Bill & Melinda Gates Foundation*

# TheView First Person

## What my father, RFK, means today

By Kerry Kennedy

THINK OF JOHN F. KENNEDY, LYNDON B. JOHNSON OR Richard Nixon. Each, in his own way, is firmly set in a certain era of American history. Yet as vibrant as they were at the peak of their power and influence, none of these men could easily slip into the contemporary political world. Their leadership was unique to their time and place.

That does not ring true for my father, Robert F. Kennedy, who was killed 50 years ago. His appearance is ever modern: the shaggy hair, the skinny ties, the suit jacket off, the shirt sleeves rolled. Beyond appearances, what is striking about RFK are the themes he returned to again and again—themes that still energize the debate and resonate in our own time.

Think of the headlines over the past few years and it is easy to hear Robert Kennedy's voice and imagine him speaking out in our country—on the madness of gun violence, the shame of police brutality, the need for compassion in welcoming immigrants and refugees, the urgent need to defy the call to war and, where war has broken out, the moral necessity of seeking peace. One imagines him urging us to focus not only on stopping terrorism but also on understanding and addressing its root causes. He would encourage us to focus on the destructive force of hate, the disillusionment of young people, the inherent injustice of a criminal-justice system that discriminates based on race and class and sends thousands to jail simply because they are too poor to make bail—the new Jim Crow. And it is easy to think of RFK reminding us of the duty to address the struggles of those who are not in the headlines, the most vulnerable among us: farmworkers, small farmers, factory workers, people who have seen the jobs that once supported them replaced by cheap labor or technology. He would also remember our duty to Native Americans and those suffering in the hollows of Appalachia, on the Mississippi Delta and in the most destitute slums of our great cities.

**IN THE 1950s**, he spent much of his time on the Senate Committee on Investigations fighting the excesses of its chair, Joe McCarthy, and his chief counsel, Roy Cohn—two figures who echo in the news today. He later caused Cohn's resignation and led to the end of McCarthy's reign of terror. Asked a decade later by Peter Maas how he could have worked for McCarthy, Kennedy responded, "Well, at the time, I thought there was a serious internal security threat to the United States ... [and] Joe McCarthy seemed to be the only one doing anything about it. I was wrong."

But to leave it at stopping the bullies would not do him justice. On that terrible night when he told a crowd in downtown Indianapolis that Martin Luther King Jr. had been murdered, he included in his remarks a quote from Aeschylus: "To tame the savageness of man and make gentle the life of the world." Indeed, my father focused much

of his life taming the savageness, and he made gentle the life of the world.

**THERE WAS NO QUALITY** my father admired more than courage, save perhaps love. I remember after dinner one night he picked up the battered poetry book that was always somewhere by his side and read aloud Tennyson's poem "The Charge of the Light Brigade." We listened aghast to the story of a group of soldiers whose commanding officer orders them to ride into an ambush, knowing they will be slaughtered—yet they still obey the command. My father then explained that he and my mother were going on a trip and challenged us to a contest to see who could best memorize the poem while they were away. I did not win that contest—my sister Courtney did—but one stanza still remains with me:

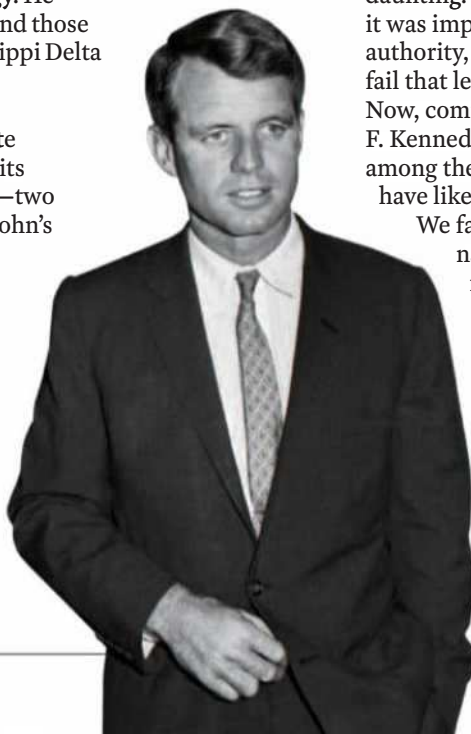
*Theirs not to reason why,  
Theirs but to do and die,  
Into the valley of Death  
Rode the six hundred*

Robert F. Kennedy on Sept. 28, 1962, as U.S. Attorney General; he would later serve as a Senator for New York

Why would a father ask his ever-expanding brood of what became 11 children to memorize a poem about war and slaughter? I think there were three reasons: He wanted to share with us his love of literature. He wanted us to embrace challenges that appear daunting. But most of all, he believed it was imperative for us to question authority, and to learn how those who fail that lesson do so at their own peril. Now, coming upon 50 years after Robert F. Kennedy's last campaign, those are among the lessons I think he would have liked to impart to all Americans.

We face daunting challenges both nationally and globally. But we must rise to those tasks armed with courage, faith, love and an abiding commitment to justice, yet girded with a healthy sense of skepticism.

*Kennedy is the president of the nonprofit Robert F. Kennedy Human Rights and author of the new book Robert F. Kennedy: Ripples of Hope, from which this essay is adapted*







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## Why Donald Trump can't kill the truth

By Errol Morris

HOW MANY TIMES HAVE I BEEN ASKED IF TRUTH IS DEAD? Or at least if truth as a concept has been hopelessly compromised? Many, many times. (Including by this very publication.) But truth is still with us—no matter how many people might insist otherwise. There is one truth. Untruth, on the other hand ...

The *Washington Post* recorded 3,001 false or misleading claims made by President Trump in his first 466 days in office. Is this just political in nature? Is it fake news? A gross misrepresentation?

Consider Trump's April 28 campaign-style rally in Washington, Mich. As the *Post* summarized, throughout the course of his 80-minute speech, the President made a variety of false claims that ranged from stating that Henry Ford invented the assembly line to asserting that Franklin D. Roosevelt served as President for 16 years to boasting that a 2016 rally saw an audience about four times as large as it actually did to saying he has "essentially" gotten rid of Obamacare to complaining that the U.S. loses "about \$500 billion" because of its trade deficit with China, even though the figure is about \$300 billion and a trade deficit is not a win-lose statistic.

It was a dizzying array of mistakes, lies and misrepresentations. We might distinguish these categories differently or think some worse than others. But this should not be considered a partisan issue. The truth is not a liberal plot. The fact that anyone would think differently is in and of itself a cause for alarm. How much do we want to give up on? The shape of the earth? The heliocentric universe? The Pythagorean theorem? The structure of DNA?

**QUESTIONS ABOUT** alternative facts and relative truths have been nettling me for decades. When I was a graduate student at Princeton University in 1972, it had been 10 years since the publication of Thomas Kuhn's *The Structure of Scientific Revolutions*. The book made him famous. Not because people had read it carefully—I just don't believe that—but because he came up with a number of notions that had a kind of general appeal. Principal among them was the "paradigm shift."

Kuhn argued that science progresses in fits and starts. In normal science, a group of "practitioners" has settled on a way of defining and solving problems—a paradigm, a conceptual scheme. They have a way of looking at the world and are by and large happy with it. But then there are anomalies—things that don't fit neatly into the scheme. One or two anomalies can perhaps be ignored, but as they accumulate, they threaten the stability of the paradigm. Unexplained anomalies lead to a crisis, a crisis leads to a revolution, and a revolution leads to a shift to a new paradigm.

This seems O.K. on the face of it. But Kuhn's claim was deeper and far more radical. He argued that as science changes, so does the world.



**69%**

Percentage of 562 statements made by President Trump that were reviewed by the nonpartisan fact-checking organization PolitiFact and received ratings of "mostly false," "false" or "pants on fire" (its most severe grade)



**26%**

Percentage of 599 statements made by President Obama that received those ratings

If we take his theories literally, we could never adequately understand the past because it is cloaked from our view by changes in meaning. And even though his views were seemingly embraced, it's not clear to me that anyone ever carefully considered their implications. I would argue that they were horrific—that, in essence, they amounted to a denial of truth and even a denial of reality.

Kuhn espoused a kind of crazy-idealist philosophy: *We make the world up as we go along*. It reminds me of the famous quote attributed to Karl Rove—who has denied saying it—during George W. Bush's presidency: "We're an empire now, and when we act, we create our own reality."

I have very limited sympathy with these views. We can argue about the number of people who went to a Trump rally, but would anyone seriously deny that there is a number and a reality to the event? What's scary about the present time is that people believe they can assert truth just by screaming louder than others or repeating themselves, like the Bellman in Lewis Carroll's *The Hunting of the Snark*: "What I tell you three times is true." But we all know in our hearts that mere repetition and decibel level is no way to truth.

Part of the controversy hinges on the difference between discovery and invention. To me, science and math are ultimately about undiscovered continents: things that really do exist, although we might not yet know about them. The example that I often use is trilobites in the Cambrian period, more than 500 million years ago. Did trilobites know the value of pi? I think not. Did any living creature in the Cambrian know the value of pi? No. But did pi exist with the same value that we know of today? Yes.

Truth is all around us. We just have to look for it. This task—figuring out where we stand with respect to truth and to the world around us—is mankind's most noble activity. We give up on it at our peril.

*Morris is an Academy Award-winning filmmaker and author, most recently of The Ashtray (Or the Man Who Denied Reality)*



## Weinstein's arrest is just the opening scene

By Eliana Dockterman

ON MAY 25, NEARLY EIGHT MONTHS AFTER MORE than 70 women accused him of sexual harassment and assault, Harvey Weinstein entered New York's First Precinct—just a few blocks from his old Tribeca office—and turned himself in. The scene was carefully curated, like something out of one of the former producer's Oscar-winning films. Weinstein wore a baby blue sweater, a soothing color that evokes the innocence of childhood. He carried books about art and filmmaking to remind viewers he's an artist first. Later, in court, he pleaded not guilty to raping one woman and forcing another to perform oral sex.

The police, too, set up an important shot of their own: the perp walk. Pointedly, a female detective led a cuffed Weinstein out of the precinct. The day offered just a preview of the spectacle that will play out on a national stage over the next several months. Both sides know that the Weinstein trial is the first installment of a series of dramas that will feature other accused men.

What we've watched up until this point has been its own genre: the revenge fantasy. The people who came forward in October with allegations against Weinstein—including actors Ashley Judd, Gwyneth Paltrow and Lupita Nyong'o—kick-started the #MeToo movement. Women from all walks of life took to social media to expose the men they said had abused them. The movement had, and continues to have, real potency. In May, Visa suspended an ad campaign with Morgan Freeman and Missouri Governor Eric Greitens was pressured to resign after each of them faced allegations of sexual misconduct. Whether their disgrace will be permanent is unclear. Men such as Kevin Spacey and Bill O'Reilly are still banished from film and media, and have decamped to their mansions. (In Weinstein's case it was an Arizona rehabilitation center that offers meditation and equine therapy.)

Now Weinstein's story could end in prison, rather than at a retreat, and the rest of us will get to witness something often frustrating, but perhaps more satisfying: a courtroom drama. The justice system has been slow to act on #MeToo claims, and Weinstein is the first major celebrity arrested since the wave began. (He's also still under investigation in London and Los Angeles.) This is where the strength of the social-media movement will be put to the test.

Justice is swift on Twitter. But the American legal system is notoriously slow. In April, three years and two jury trials after *New York* magazine featured Bill Cosby's many accusers on their cover, the actor was convicted of sexual assault. His appeal could take years.

What lost Weinstein his job, his company and his reputation was the sheer number of women who



*Weinstein pled not guilty to charges of rape and criminal sex acts*

spoke out in articles, in op-eds and on Twitter. It's not certain how many of those women will be allowed to testify during his trial to establish a pattern of bad behavior. Those types of testimonies proved powerful at the sentencing hearings for both Cosby and Team USA gymnastics doctor Larry Nassar. The last thing Weinstein's attorneys want is to have woman after woman take the stand to recount Weinstein's alleged misconduct.

**AS ASHLEY JUDD** recently wrote for *TIME*, Weinstein's arrest shouldn't have been a surprise: "A sexual predator being legally accountable for criminal behavior is and should be normal, routine and not particularly newsworthy." And yet the arrest did signal a shift in the #MeToo movement. Many men accused of criminal behavior lost their careers, but they didn't risk losing their freedom. Now the justice system is stepping in.

Weinstein maintains that his sexual acts were consensual, and as his lawyer put it on the day of the arrest, "Mr. Weinstein did not invent the casting couch in Hollywood." It's true that he was not the only one whose unethical—and allegedly criminal—behavior was an open secret. Spacey is currently under investigation for sexual misconduct, as are celebrity chef Mario Batali and actor Ed Westwick.

It's clear now that #MeToo was the prelude, a catalyst for a new story. This tale will have many twists and turns. Former New York Attorney General Eric Schneiderman filed a civil rights lawsuit against Weinstein in February before Schneiderman himself resigned after being accused of physical abuse by four women. (He denies the allegations.) There will be distractions and appeals. There will be civil suits, like the one Judd recently filed against Weinstein.

But this new chapter began with Weinstein in handcuffs. The police insisted on them, adopting Weinstein's own flair for the cinematic and symbolic. As disgraced men like Charlie Rose and Matt Lauer reportedly plot comebacks, those handcuffs send a clear message: #MeToo is only the beginning.





# THE DRONE

## INSIDE

### THE SKY WILL NEVER BE THE SAME

By Alex Fitzpatrick

### INSIDE THE RACE TO SECURE OUR AIRSPACE

By W.J. Hennigan

### A YOUNG LIFE, SAVED

By Aryn Baker

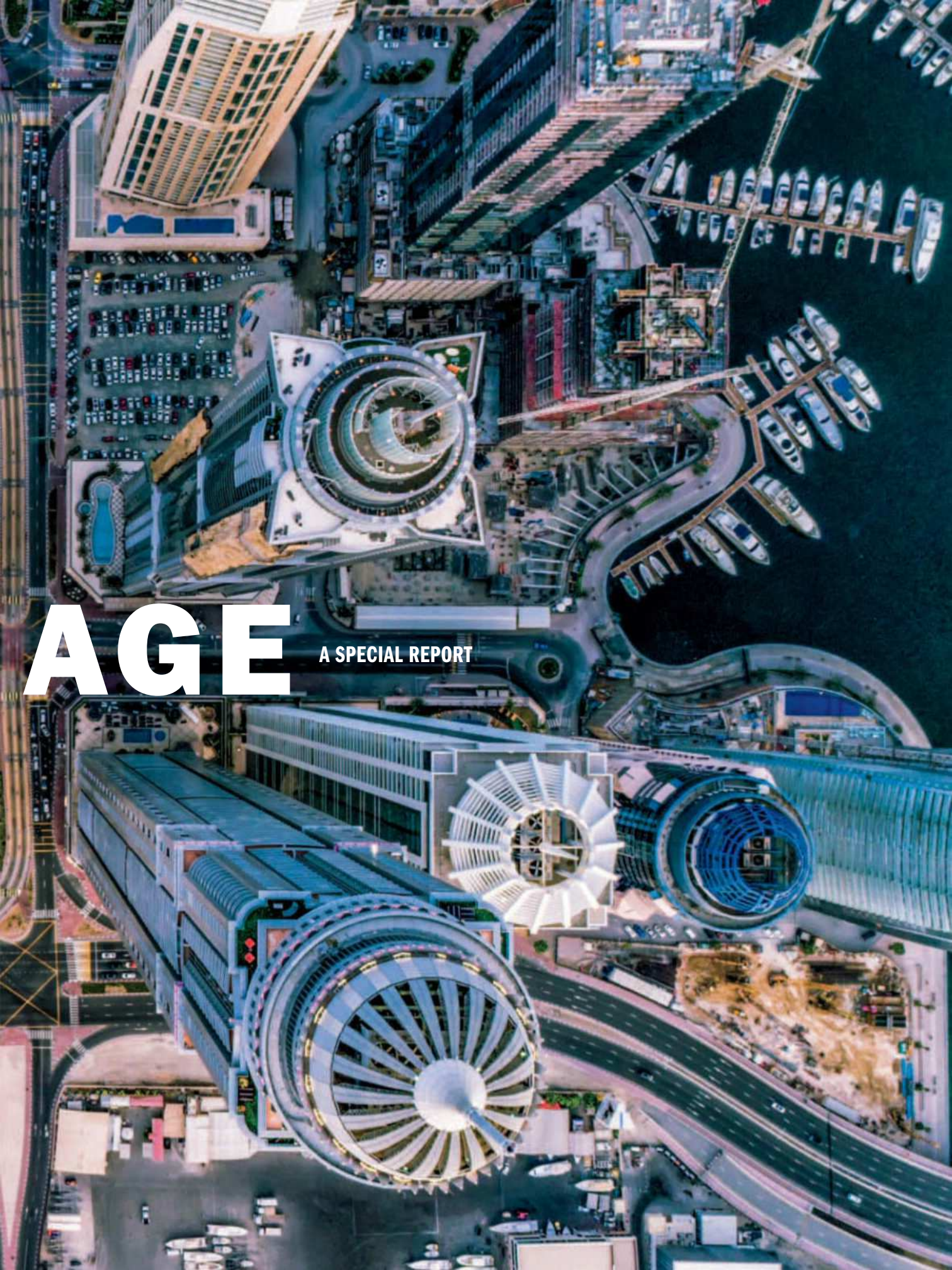
### ARTISTIC INSPIRATION FROM ABOVE

By Stephanie  
Zacharek

DUBAI, A FAVORITE  
SKYLINE OF DRONE  
PHOTOGRAPHERS

PHOTOGRAPH BY  
BACHIR MOUKARZEL





# AGE

A SPECIAL REPORT



# DRONES ARE EVERYWHERE. GET USED TO IT

BY ALEX FITZPATRICK

When Hurricane Maria hit Puerto Rico last September, it ravaged the island's electrical grid and communications systems. For weeks, many of the

approximately 5 million Puerto Ricans living in the mainland U.S. were unable to reach their loved ones. While recovery groups worked to restore power and deliver aid, cell providers scrambled to repair their networks. To get its service back up and running, AT&T tried something new: the Flying COW, a tethered drone that beamed mobile-data signals up to 40 miles in all directions.

"As soon as we turned it on, people just started connecting to it instantly," says Art Pregler, AT&T's Unmanned Aircraft Systems program director. His team operated the Flying COW, short for "cell on wheels," from the parking lot of a Walmart on the island, which provided the Internet connection for the airborne cell tower.

With any technology, there are certain inflection points when it goes from being something perpetually in the near future to being a part of everyday life. For years, drones have been hovering on the cusp—used by militaries and relatively small numbers of hobbyists but not part of the larger culture. The U.S. military ushered in the drone age in 2001, when it began using the unmanned, remotely piloted technology to target al-Qaeda leaders in the wilds of Afghanistan. Drones have since become a key part of the military's arsenal, and their use in conflict zones around the world has expanded under both the Obama and Trump Administrations. Civilian uses, however, have long been more promise than reality.

That's finally changing. Some 3 million drones were sold worldwide in 2017, and more than 1 million drones are registered for U.S. use with the Federal Aviation Administration. (Most store-bought drones have to be registered with the FAA.) These consumer drones can fly vertically, like helicopters, and are similar to remote-controlled airplanes but with more sophisticated technology such as GPS, wi-fi and obstacle-avoidance sensors. They're being used by tech-savvy farmers to monitor and spray crops, by researchers to measure environmental pollution



## 1.1 MILLION

Number of FAA registrations for drone use in the U.S. (918,000 hobbyists and 194,000 commercial drones)

SOURCE: FAA



and by Hollywood studios to capture action-packed footage for blockbuster movies. Drones are even saving lives, as first responders in places like Menlo Park, Calif., use them to coordinate operations and search for missing hikers. (Sixty-five people have been rescued by drones, by one estimate.) And of course, drones are being flown by hundreds of thousands of amateurs, who use them for everything from taking vacation photos to buzzing around their local park.

While businesses used the first wave of drones to take overhead real estate photos and deliver





pizza for public relations stunts, now companies are experimenting in ways that could dramatically change entire industries. Amazon is working on drones that could deliver packages within minutes, technology that could one day be used for time-sensitive health emergencies like organ shipments. Facebook is working with drones to beam Internet connectivity to isolated corners of the world; the energy giant Shell employs the technology to keep its network of offshore rigs running smoothly. Meanwhile, investors are pouring hundreds of millions of dollars into drone startups with names

*Surfers avoid  
riptides off  
Australia's  
southwestern  
coast*

like Skycatch (which creates aerial maps) and Skydio (which makes video-recording drones that automatically track a subject). The drone business is heavily dominated by China. Roughly 72% of the global market is controlled by DJI, which is headquartered in Shenzhen, often referred to as the Silicon Valley of China.

All this investment raises both possibilities and concerns. Privacy advocates are worried about the unchecked growth of aerial surveillance. Drones have been used to smuggle drugs into prisons, and the U.S. military is spending hundreds of millions of dollars to develop methods to prevent them from becoming terrorists' weapon of choice. Some people, concerned about protecting their privacy from high-flying cameras, have taken matters into their own hands, like a Kentucky man who said he saw one flying over his property in 2015, grabbed a gun and shot it down. (He later sold T-shirts labeled **DRONE SLAYER**.) DJI recently unveiled a way for authorities to identify aircraft in no-drone zones.

**AT LEAST 122,000 PEOPLE** in the U.S. are now certified to fly drones professionally, according to the FAA, which sparked the drone explosion in 2016 when it simplified its process for allowing their commercial use. Small drones, often between the size of a soda can and that of a mini-fridge, are relatively cheap and easy to fly and can carry a variety of payloads, including high-resolution cameras and thermal-imaging gear.

The surge in drone use presents a challenge for regulators. The FAA rules governing drone operation, which include no flying outside a pilot's line of sight, have been criticized by drone entrepreneurs for hampering a burgeoning industry. How can Amazon deliver your toothpaste with a drone if it has to stay within eyeshot of a pilot? The Department of Transportation is working with drone-flying companies in 10 states as it tries to strike a balance between safety and innovation, and groups like NASA are studying ways to safely integrate drones into an already crowded airspace. (U.S. commercial pilots report about 100 too-close-for-comfort encounters per month.)

Developments in artificial intelligence and automation will make it possible to operate massive drone fleets simultaneously, increasing efficiency and greatly expanding their capabilities. First responders envision highways lined with drones ready to zip lifesaving medicine to accident scenes. Global transportation firms are designing helicopter-size versions that could zip people around like flying taxis, *Jetsons*-style, without a pilot on board.

Like it or not, the sky above is about to become far busier. □

# RISING TO A NEW THREAT

BY W.J. HENNIGAN

LAST FOURTH OF JULY, AS FIREWORKS BURST across the night sky near the Lieber Correctional Institution in Ridgeville, S.C., convicted kidnapper Jimmy Causey tucked a lifelike dummy into his bed, sneaked out of his prison cell and completed a daring escape. It wasn't until three days later, when Texas Rangers found Causey holed up 1,200 miles away, that authorities offered an explanation for how he had obtained the equipment for the breakout, including a pair of wire cutters used to snip through four fences that encircle the maximum-security prison. "We believe a drone was used to fly in the tools that allowed him to escape," Bryan Stirling, director of the South Carolina Department of Corrections, told reporters at a news conference.

A lengthy investigation confirmed that an accessory role was played by a small, off-the-shelf drone. And with that, law-enforcement and national-security officials added "prison breaks" to the potential ill-uses lurking in a technology widely available at retailers including Amazon and Walmart. Unlike military drones that can cost more than \$15 million and look like small airplanes, mini quadcopters can be obtained for a few hundred dollars—and their capabilities are exciting the imaginations of bad guys. Criminals have used drones to drop drugs into prisons. Mexican smugglers have flown them above the border to spy on the movement of patrolling federal officers. ISIS used them to drop crude bombs on U.S. and allied forces in Iraq and Syria.

It is the widespread availability of commercial drones that poses the largest threat. Almost everybody who uses a drone in the U.S.—and the Federal Aviation Administration has licensed more than a million operators—flies by the rules. But not everyone, and perhaps the major lesson of 9/11 was to look for threats from unexpected places, especially overhead. Yet on drones, the federal response has been largely haphazard and behind the curve. The Pentagon is working to develop and deploy technologies to defeat drones and intends to spend \$401.2 million on counter-drone initiatives this fiscal year, according to a study by the Center for the Study of the Drone at Bard College. "We know that terrorists are using drones overseas to advance plots and attacks, and we've already seen criminals use them along and within our borders for illicit purposes," Department of Homeland Security Secretary Kirstjen Nielsen tells TIME. "We are working with Congress for the authorities needed

*Militaries around the world deploy drones. Israel used small drones to drop tear gas on protesters along the border fence of the Gaza Strip*

THOMAS COEX—AFP/GETTY IMAGES







**“Terrorists are using drones overseas to advance plots and attacks ... criminals use them along and within our borders.”**

KIRSTJEN NIELSEN, SECRETARY OF HOMELAND SECURITY

to ensure we can better protect the American people against emerging drone threats.”

Part of the problem is that our laws and regulations aren’t designed for this new kind of threat. Current electronic-eavesdropping laws preclude government officials from disabling drones midair with electromagnetic signals. A bipartisan group of Senators has introduced a bill that would give the Trump Administration the power to electronically jam drones that get too close to federal facilities; it is expected to pass before the end of the year. Agencies across government are now forbidden to identify and shoot down drones because of decades-old regulations that treat the robotic aircraft as if they were passenger jets.

Officials say they’re in a race against time. “It’s not if these devices will be weaponized in the homeland but when,” an Administration official told TIME. A White House fact sheet put out in support of the new measures says criminals could “drop explosive payloads, deliver harmful substances and conduct reconnaissance” using quadcopters. In November, authorities arrested a 55-year-old Sacramento man who flew a drone that dropped leaflets featuring a rant against television-news outlets inside Levi’s Stadium in Santa Clara, Calif., during an NFL game. No one was harmed, but officials with DHS and outside analysts took it as a warning: What if the drone’s payload were an explosive or a harmful chemical? He was cited for flying the drone in prohibited airspace, a misdemeanor.

One reason the U.S. government fears drone warfare is that it knows the power of remotely controlled air power. Since 2001, the CIA and Air Force have deployed the multimillion-dollar fixed wing MQ-1 Predator and MQ-9 Reaper drones, which are the size of small fighter jets and can deliver Hellfire missiles and 500-lb. bombs. These drones, mostly operated remotely from Nevada, have killed thousands of militants across the Middle East and the Horn of Africa. They have also been responsible for 751 to 1,555 civilian deaths, according to the London-based Bureau of Investigative Journalism, which tracks drone-strike data.

The Obama Administration struggled to balance the strategic advantages of drones with the humanitarian costs. Over years of internal debate and external pressure, it developed a legal and policy framework underlying the controversial practice of targeted killing with drones. Critics, like the American Civil Liberties Union, said the extrajudicial system enabled a sitting President to be “judge, jury and executioner.” The Trump Administration has continued operating under the Obama rules. It has loosened constraints on who can be targeted on the basis of the threat they pose.

Most of the danger from the commercial drone boom here at home has been in the category of



*An Iraqi fighter spots a circling drone, unclear whether flown by an ally or a foe, in Mosul in April 2017*

nuisance offenses. Under current law, hobbyists and commercial users must keep unmanned aircraft below 400 ft. and avoid flying within five miles of an airport to avoid endangering commercial aircraft. Even small drones could disable a passenger jet by getting sucked into and destroying a jet’s engine.

Still, recreational drone users often ignore the law. On Sept. 30, 2017, alone, there were eight dangerous drone incidents, according to the FAA: an airline pilot reported spotting a drone at 4,000 ft. as the passenger jet came in for a landing at O’Hare International Airport in Chicago; a pilot leaving Dallas/Fort Worth International Airport spotted a drone about 100 yd. off his left wing, hovering at 6,500 ft.; and others had close calls in Long Beach, Calif.; Burbank, Calif.; Newark, N.J.; McAlester, Okla.; Hollywood, Fla.; and San Antonio. In the first nine months of 2017 there were 1,696 drone sightings, according to the FAA’s most recent data, compared with 238 in all of 2014, the first year the data were tracked. The FAA expects the problem will get worse as the number of drones is estimated to triple to 3.5 million by 2021.

The risk of small drones’ flying into sensitive facilities first came into public view in 2015 when a hobbyist lost control of a drone that crashed on the southeast side of the 18-acre secure zone around White House grounds at about 3 a.m., triggering a Secret Service lockdown of the compound. Drones are off-limits in the airspace in the 15-mile





radius around Washington and also over places like the Hoover Dam, the Statue of Liberty and Mount Rushmore. The drone that crashed near the White House, called a DJI Phantom, caused no damage, but it flew in undetected.

That highlights one of the greatest challenges to tracking and countering drones deployed by bad actors. Existing radar systems are designed to detect much bigger threats. Most commercial drones are constructed of plastic and are difficult to spot electronically because they're small, fly low to the ground and don't carry a transponder to signal their positions. "It's only a matter of time before the threat manifests in a violent way," Defense Secretary James Mattis told a Senate panel in May.

The military has already faced the drone danger abroad. As American Special Operations commandos fought to retake the Iraqi city of Mosul from ISIS in the fall of 2016, they faced a threat that American ground forces hadn't dealt with: attack from the air. Desperate to break the American-led siege of the city, ISIS militants sent fleets of small drones, often several at a time, carrying grenades and miniaturized explosives, scattering troops and driving them to seek cover. "At one point there were 12 killer bees, if you will, right overhead," General Raymond Thomas, head of Special Operations Command, said last year, adding that the fighting nearly came to a "screeching halt." The drones were too small for a fighter pilot or a tank gunner to pursue, which meant the troops' only defense was to try to shoot the aircraft out of the sky with their rifles. Thomas said the small drones were the "most daunting" threat

his commandos faced during the house-to-house campaign in Mosul. No U.S. casualties were reported. No American forces have been killed by an air attack since the Korean War.

America's defensive tactics against drone strikes are rudimentary. ISIS has launched drone attacks on ground forces for the past two years. American commanders rushed electronic jammers to the war zone, but there were spotty examples of success. The Pentagon is working to develop two ways to combat terrorist drones: "hard kill" solutions that involve physically disabling drones, and "soft kill" ones that bring them down electronically. Much of the work falls to the military's Joint Improvised-Threat Defeat Organization, or JIDO, which was formed to combat roadside bombs during the wars in Iraq and Afghanistan. Lieut. General Michael Shields, JIDO's director, says the goal isn't to find a "silver bullet" to take drones down but to have an arsenal of both hard-kill and soft-kill capabilities.

JIDO has tried different approaches. It has developed small drones to patrol the skies and shoot a net to snag enemy drones. The so-called Negation of Improvised Non-State Joint Aerial threats system, or NINJA project, outfits drones with electronics that commandeer enemy drones by sending false GPS signals to trick the aircraft's receivers. The Defense Advanced Research Projects Agency is developing a program that relies on a network of sensors to provide wide-area surveillance of all drones operating below 1,000 ft. in a city. DARPA has chosen defense giants Lockheed Martin and Raytheon, along with the University of Washington, to test their new technologies at various sites this year under contracts totaling \$13 million.

There has been a boom market for countermeasures. Guard From Above, a Dutch company, trains eagles to intercept drones in midair. Britain-based OpenWorks Engineering designed the SkyWall bazooka that fires a net-carrying canister to capture drones and bring them to the ground. DroneShield, based in Sydney and Virginia, builds devices that use radar, acoustic and thermal sensors to detect drones in flight and send an alert if they fly near a stadium, prison or other restricted property. The company also makes jamming devices for roofs and porches that erect virtual walls drones can't fly through.

A February study by Bard's Center for the Study of the Drone identified 230 products designed by 155 manufacturers in 33 countries to subvert malicious drones. Back in South Carolina, where Jimmy Causey is back behind bars, law enforcement is already getting into the game. On May 24, corrections officials showed reporters a new tool to prevent contraband from entering the state's 21 prison yards: small drones remotely piloted by two military veterans. □



#### CONFLICT DRONES

Affordable, commercially available drones have been outfitted with explosives and used as flying weapons.







## Aerial View

**Inequality is found around the globe,** but the World Bank says **South Africa qualifies as the starkest example.**

For a vivid perspective on it, Johnny Miller of the Unequal Scenes Project sent a drone over northwest Johannesburg. On the left is Kya Sands, a shack city that is home to many economic migrants who arrived from other African nations. Across the road is Bloubusrand, a middle-class suburb known for its diverse mix of residents.

PHOTOGRAPH BY  
JOHNNY MILLER









## THESE DRONES ARE SAVING LIVES

BY ARYN BAKER/KIGALI, RWANDA

FOR SEVERAL DAYS, DELPHINE TWESE HAMWE'S 2-year-old daughter Ghislane had been screeching in pain as fever wracked her tiny body. A nurse at the local clinic in central Rwanda told her that an acute form of malaria was attacking her daughter's red blood cells. There was nothing the clinic could do to save her life, so they called an ambulance. But by the time mother and child arrived at the district hospital in Kabgayi, Ghislane had stopped moving. "We arrived too late," Hamwe says. "There was no sign of life. I thought she was dead." The nurses offered a blood transfusion as a last resort. Hamwe, numb and distracted, agreed. She was already on her phone, messaging the bad news to family back in the village.

Meanwhile, a technician at the hospital laboratory was typing out his own message, a request for two units of pediatric red blood cells, O+. Normally, he would have dispatched a car and driver to the central blood bank in the capital, Kigali, a three-hour round-trip. But the urgency of the case forced him to try something new. His phone flashed a confirmation message: the blood was on its way, with an estimated delivery time of just six minutes.

Before long the high-pitched whine of a drone could be heard circling the hospital grounds. As it passed over the lab's parking lot, it released a red cardboard box attached to a paper parachute. Inside the box were two packets of blood, wrapped in insulating paper and still chilled from refrigeration.

**UP NEXT**  
Drones that can fly great distances and take off and land vertically are being tested for their capabilities in emergency-response operations.



A nurse rushed the blood over to the emergency wing, and within minutes it was pumped into Ghislane's limp body through an IV. The child opened her eyes. It was Dec. 21, 2016, and she had just become the first person in the world who owed her life to a drone delivery.

In March 2016, Zipline, a U.S. startup, partnered with the Rwandan government to launch the world's first commercial drone delivery service, ferrying vital medical supplies to far-flung hospitals by air. Since October of that year, the company has dispatched more than 7,000 units of blood products to 21 hospitals, including red blood cells, platelets and plasma that would have otherwise needed to travel by a treacherously tangled road network, losing precious hours in the race to save lives.

"Before, it took at least three hours to get blood in an emergency," says Dr. Roger Nyonzima, head surgeon at Nyanza Hospital's maternity ward, which is about 60 miles from Kigali. "Three hours can make the difference between saving or losing a life. Now we get blood in 15 minutes. Fifteen minutes, we can work with."

The success of Zipline in Rwanda has inspired the company to grow. Zipline is now expanding into neighboring Tanzania, with plans to launch the world's most extensive drone delivery service providing blood-transfusion supplies, emergency vaccines, HIV medications, antimalarials and basic surgical supplies to more than 1,000 health facilities.

A Latin America launch is in the works as well, says Zipline co-founder Keller Rinaudo. "The reality is, moms die in every country in the world for [lack of blood]," he says. "Rwanda was just the first country to do something about it."

Zipline is not alone in the medical-supplies-by-drone sector. Swiss Post, in conjunction with Matternet, a Silicon Valley-based tech company,





is developing a similar program to ferry blood samples and biopsies between hospitals in dense urban areas, and plans to be fully operational in Swiss cities this year. But Matternet's small quadcopters can cover only short distances. Several other startups are exploring drone delivery of blood samples for disease tests, defibrillators and even condoms in the U.S. and around the world.

**THE INSPIRATION TO FORM ZIPLINE** came from a list of lives lost in rural parts of Africa due to a shortage of essential medicines. Robotics expert Rinaudo and aviation consultant Will Hetzler, former roommates at Harvard, met a computer programmer and public-health researcher, Zacharia Mtema, in Tanzania. Mtema had developed a text-messaging system for doctors to log cases in which they had lacked the medical supplies that were needed to save the lives of patients who were suffering from easily solvable afflictions like postpartum hemorrhages, snake bites and bites from rabid animals.

"It was essentially a database of death," says Rinaudo, who recalls scrolling through thousands of heartbreaking entries. To him and Hetzler, drone deliveries seemed like an obvious solution.

On any given day, scores of drones launch and land at Zipline's Rwanda headquarters, a former cornfield in the city of Muhanga, about an hour's drive from Kigali. The steady rhythm of packing, launching, collecting and charging the drones belies the groundbreaking technological advances in robotics, autonomous navigation and aerospace management that underpin the business. That's the way the founders want it. "Zipline isn't a drone company," says Rinaudo. "Zipline is a health care logistics company."

The design of their electric aircraft, called Zips,

*From left:  
Zipline  
technicians  
prepare and  
launch a drone  
in Muhanga; a  
doctor picks up  
a Zipline blood  
delivery; Donata  
Mubandakazi  
comforts her  
10-year-old son,  
who received  
plasma from a  
Zipline drone  
during a recent  
surgery*

diverges wildly from the quadcopters that are currently being used by most drone companies. Instead, they look like small propeller airplanes, enabling them to fly faster and longer—100 miles—on a single charge, in any weather short of a hurricane. The Zips navigate to their pre-programmed destinations using GPS and drop their payloads via parachute, instead of landing, to minimize the number of people who need to be trained on how to interact with a drone. All the hospitals need is someone who can send an order and pick up the box when it lands.

Once an order arrives in Zipline's computer database, blood-bank technicians pull the required stock from state-of-the-art blood-storage facilities and pack it into sturdy cardboard boxes that are already fitted with parachutes. The drones can carry up to 3.9 lb. of blood products at a time. Drone operators load the boxes into Zips, which can reach more than half of all Rwandan territory. A second facility that will cover the rest of the country is under construction.

The operator loads the Zip onto a catapult-type launch mechanism and enters the destination on a tablet, and with a high-pitched whine, the Zip is airborne. The whole process takes about a minute from order to launch. Once the Zip nears its destination, it sends an automated text message to the hospital, announcing the exact arrival time. Then it swoops down toward the designated landing zone, drops its payload and circles back toward home base.

Blood and medical-supply shortages affect rural hospitals in the U.S. just as they do in Rwanda, and Zipline, after an invitation from the White House in 2016, is now working with the U.S. Federal Aviation Administration to launch a similar service in parts of the U.S. later this year. □



## Aerial View

### **Satellite photos tell us the polar ice cap is melting.**

And terrestrial photographers have captured distressing images of **emaciated polar bears that struggle to survive** each summer as the seasonal ice from which they hunt leaves earlier and returns later. A camera mounted on a drone captured one bear's effort to find solid footing in the summer of 2017 on a melting floe in Lancaster Sound, off Baffin Island, Canada—not far from Greenland.

PHOTOGRAPH BY  
FLORIAN LEDOUX







# FOR HOLLYWOOD AND ARTISTS, THE SKY IS THE LIMIT

BY STEPHANIE ZACHAREK

AROUND THE TIME LEONARDO DA VINCI WAS painting the *Mona Lisa*, he was also writing his *Codex on the Flight of Birds*, a roughly 35,000-word exploration of the ways in which man might take to the air. His illustrations included diagrams positing pre-Newtonian theories of physics, a rudimentary plan for a flying machine and many, many sketches of birds in flight. The *Mona Lisa*, with her secretive smile, is a universe of intimacy captured on a relatively small panel of wood. But the landscape behind his captivating subject shows the world as you would see it from atop a tall hill—or from the vantage point you would get if you had hitched a ride on the back of a giant bird. Even as da Vinci was perfecting one way of seeing a face, he was dreaming of other ways of looking. No wonder he wanted to fly, perhaps less for the physical rush than for the thrill of seeing the world from above.

That's the pleasure drones give us: they send eyes where our bodies can't easily go unencumbered. A GoPro camera attached to a bird of prey shows us where the bird wants to go, which clues us in to what it's thinking. Drones, as of now operable only by humans, tell us what humans find visually interesting. Drones are practical, but like any tool wielded by humans—pencil or paintbrush or maestro's baton—there's poetry in them too. Because of this, more and more, drones are finding their way into the art world.

"If you think about traditional art and Renaissance perspective, the ideal viewer was on the ground with a stable horizon line," says Matthew Biro, a professor of modern and contemporary art at the University of Michigan. "And the drone takes us off that. It takes us out of our body in a certain way, kind of giving us an overlaid perspective."

Some artists, like photographer Trevor Paglen—also a geographer and writer—have depicted drones directly as a means of questioning their role in government surveillance and warfare. In some of Paglen's works, drones are seen as nothing more than a dark speck against a backdrop of becalming gray or sun-gold clouds, a way of denoting their possibly sinister near invisibility in our world. But as humans in general are seeing less malevolent possibilities in robotic aircraft, people who make art are finding inventive ways to use it.

Graffiti and fine artist Katsu was the first person credited with using a drone in the tagging of a billboard, as a way of disrupting the order of our everyday landscape. In New York City in 2015, he used



*A landscape by Reuben Wu, who achieves otherworldly lighting effects in his photographs by using custom-modified drones*

a small, customized drone, outfitted with a paint sprayer, to mark a billboard image of the model Kendall Jenner with shaky yet adamant red stripes. The YouTube footage of the event—it took place under the cover of night—shows the drone flitting around Jenner's larger-than-life visage like a pesky mosquito, taunting the image's manicured perfection. The footage of the drone in action, more so than the marks that would be visible to passersby the next day, is the key to understanding how drones can shift human perspective. A drone has no mind of its own, but its movements—as guided by its operator—make us think about how we process images, where our eyes linger and what they skim over. It's little wonder that Katsu's drone never strays far from Jenner's gaze. Instead, it meets her eye-to-eye in a mechanical confrontation that's somewhat ghostly, like an out-of-body experience.

Katsu has since moved on to creating paintings with drones. He guides them before the canvas, and while he has a degree of control over their movement, he can't maintain strict aim. The paint they fling hits the surface in unpredictable ways, resulting in splattery webs and clouds of varying density. There's a hushed naiveté to the paintings. They're spontaneous





rather than accomplished—but accomplishment isn't the aim. They're more about discovery. "It's kind of a dance between the flight computer and wind turbulence, and then my decisions," Katsu explains. "So it creates an unexpected result."

The otherworldly photographs of Reuben Wu represent another kind of exploration. Inspired by 19th century romantic painting, science fiction and notions of interplanetary exploration, Wu has made a series of landscape photographs lit by custom-modified drones. The results, featuring vivid, Maxfield Parrish-like tones of orange, mauve and teal, are hypnotic and transportive, surreal and naturalistic at once. These are places you could visit in real life, though they wouldn't look anything like these photographs. Wu's drone lighting renders the natural world in the visual language of dreams.

**THE CASUAL OBSERVER'S** understanding of what drones can do is mostly informed by the way they're used to make movies, television shows and commercials. Since 2014, when the use of drones in filmmaking became legal (it is still highly regulated by the FAA), aerial footage captured by drones has become so common that we barely notice it. In the

#### CINEMATOGRAPHY DRONES

Last year, the National Academy of Television Arts & Sciences gave Emmy Awards to nine companies for advancing drone use in the TV industry.



early days of drone use, filmmakers quickly realized how useful these nimble devices were for close-up action shots. Drones proved especially handy for filming chase scenes, like the opening motorcycle sequence of the 2012 James Bond film *Skyfall*. In Martin Scorsese's 2013 *The Wolf of Wall Street*, drones were used to shoot a raucous party scene from above, allowing audiences to peer voyeuristically into characters' lives. Cinematographers are finding increasingly creative ways to use drone technology: in the 2015 *Jurassic World*, a drone-mounted camera swoops low over a crowd of people who are being attacked by pterosaurs to mimic the movement of the flying reptiles. But if drones are becoming ubiquitous, they're also still somewhat controversial, and some filmmakers are turning their cameras on the machines themselves. On an episode of the sci-fi show *Black Mirror*, for example, characters lose their privacy when a blackmailer films them with a drone. The audience sees the scene through both regular cameras and through the drone's lens, underscoring the ways in which these devices make us vulnerable.

Although drones can be extremely cost-effective for certain applications—in place of, or in combination with, dollies and jibs, for example—when it comes to aerial views, they haven't fully vanquished the use of helicopters and cranes. Their limited battery life still makes some uses impractical, and they can be flown legally only at relatively low altitudes. But when they *can* be used, the savings are significant. Tony Carmean, a founding partner of drone-cinematography company Aerial MOB, estimates that a helicopter can cost a filmmaker from \$20,000 to \$40,000 for a 10-hour day shoot. Aerial MOB can supply a drone for \$4,500 to \$13,000 a day, including crew, equipment and insurance.

The more drones are used, the more likely we are to take elaborate drone shots for granted. Yet these machines are still finding ways to wow us. Looking for a moment of zen at work? Join the more than 2 million people who have watched a particularly soothing YouTube video, the work of aerial photographer Tim Whittaker. In it a flock of New Zealand sheep, flanked by tiny moving dots that are actually running dogs, undulate in and out of formation—they're disorderly, fat white molecules that eventually succumb to sanity and order as they squeeze through a fence opening and into the next field. Viewed from above, they're a lyrical representation of chaos and resolution, a piece of woolly free jazz that ultimately lands on the most calming note.

The aerial perspective—of sheep or anything—is liberating precisely because it's destabilizing, Biro says. "Drone vision allows us to see that there are multiple ways of seeing ourselves and seeing the rest of the world. We step out of ourselves to some extent. That's its positive potential." —*With reporting by* ABIGAIL ABRAMS/NEW YORK □

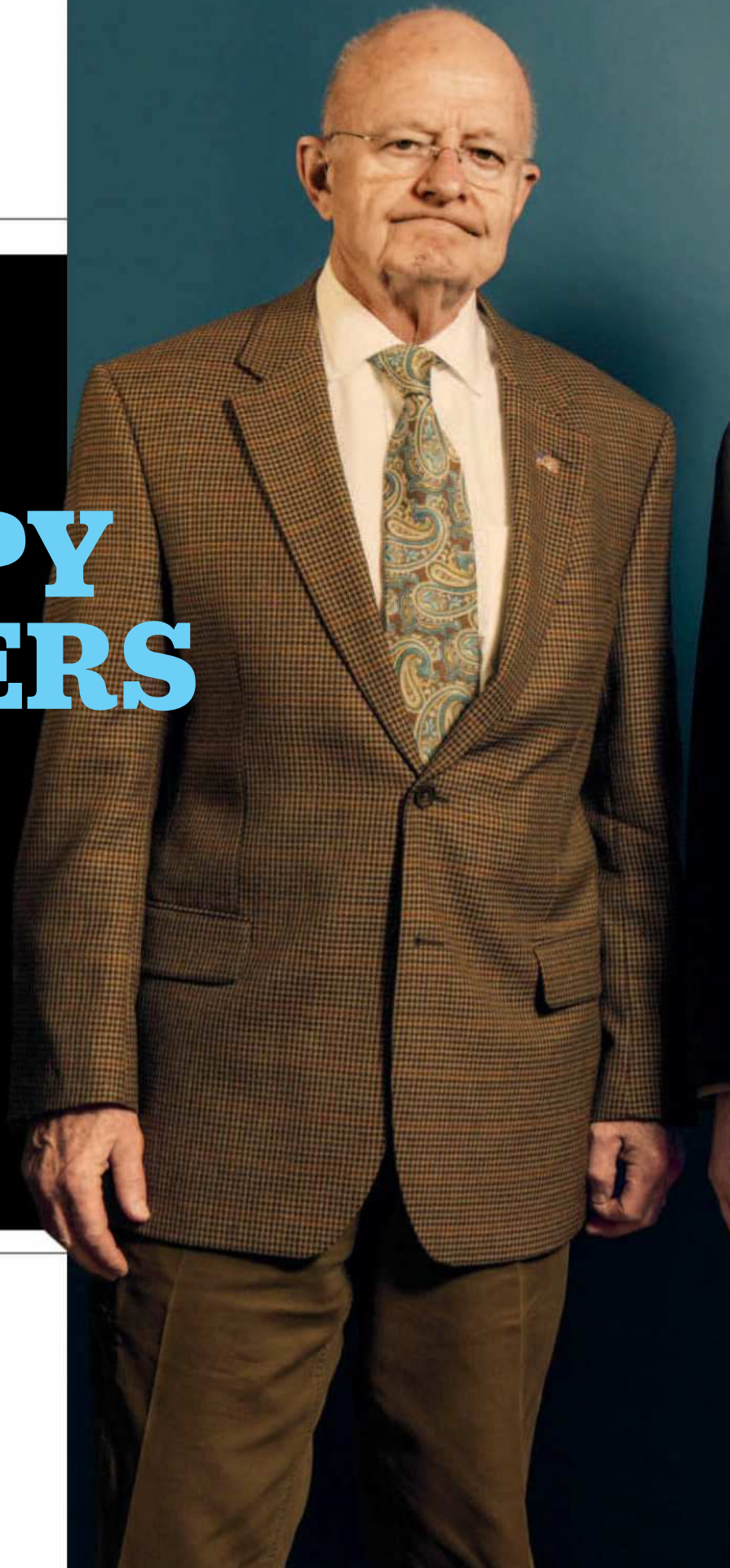
TIME with ...

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# THE SPY MASTERS

**Two former  
intelligence chiefs  
chart the collapse of  
faith in government  
and warn of the  
dangers of Trumpism**

**BY MASSIMO CALABRESI**







*Former Director  
of National  
Intelligence James  
Clapper, left, and  
former CIA chief  
Michael Hayden  
at the Watergate  
Hotel in May*

IT SOUNDED LIKE A SCANDAL. IN A SERIES OF late-May tweets, President Trump alleged that the Obama Administration had placed a spy in his 2016 campaign for political purposes. “This is bigger than Watergate!” he wrote. But “SPYGATE,” as Trump dubbed it, was not exactly what he said it was. The FBI had reportedly deployed an informant to covertly question low-level members of Trump’s circle who had been contacted by Russian operatives. The goal, according to Democratic and Republican members of Congress who have seen the intelligence, was to figure out what Moscow was up to, not to infiltrate Trump’s campaign.

To James Clapper and Michael Hayden, two long-serving, retired leaders of the U.S. intelligence community, Trump’s tirade was just the latest in a string of politically motivated attacks on America’s spies. “[Trump] is undercutting the validity of institutions on which we’re going to have to rely long after he’s left office,” says Hayden, who led the Central Intelligence Agency from 2006 to 2009 and the National Security Agency from 1999 to 2005. Trump “is constitutionally illiterate [and] a real test of our institutions and values, and the country’s resilience,” says Clapper, who led the Defense Intelligence Agency from 1991 to 1995 and was Director of National Intelligence from 2010 to 2017.

That is unusually tough talk from two former Republican appointees. But Hayden and Clapper say the schism between the President and the U.S. intelligence community is really about the breakdown of trust between the government and the governed. Over the course of their careers, they have watched Americans’ faith in their government collapse. In 1964, 77% of Americans trusted the federal government most or all of the time, according to the Pew Research Center. As of December 2017, that number was 18%, nearing an all-time low.

Now both men have written books arguing

that Trump is tapping this distrust to advance his own power, threatening the stability of the Republic in the process. They worry that the steps taken after Watergate to restore public trust in government are collapsing. Ultimately, they fear that the consensus that holds the nation together—objective truth—is breaking down. That, they say, has been a precursor to government collapse, civil war and dictatorship in other countries, and they worry the same thing can happen here. “That’s why this really scares me,” says Hayden.

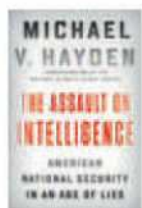
Clapper and Hayden are quick to say that Trump is more a symptom of America’s dysfunction than its cause. But there is a danger in this kind of talk. Hearing the Republic is under attack from the President can suggest that drastic action is called for, which can itself undermine the institutions of government. And exaggerated threats have been just as damaging to public faith in the intelligence community as threats that went undetected. To talk about it, the men met TIME at the Watergate complex, where a 1972 break-in spawned the scandal that redefined the terms of governance.

**NEITHER MAN IS TAILOR-MADE** for the job of restoring faith in truth and government. For starters, some spies lie. And it was the discovery that America’s intelligence services had been exploiting secrets for something other than the national good that fueled the crisis after Vietnam and Watergate. Congressional investigators in the 1970s found that the CIA, NSA and FBI had been meddling in politics and breaking the law to protect the interests of their agencies and preferred political bosses, not the American people.

In response, Congress created special committees to oversee the work of the intelligence community. With the new constraints in place, Hayden says, “we took it as an article of faith that if we followed the [new rules], we are doing things that are legitimate within American political culture.”

The post-Watergate measures held up for decades. There were crises, including the intelligence community’s failure to spot the 9/11 terrorists’ plot, the faulty intelligence that contributed to the decision to go to war in Iraq and the 2013 revelations by Edward Snowden of the government’s electronic-surveillance programs. But even as faith in the federal government declined, trust in the intelligence agencies remained relatively high. In 2015, faith in the CIA was still about 60%, according to Pew, and in the NSA about 52%.

A year later, public confidence in the CIA had plummeted to 33%, according to an NBC/*Wall Street Journal* poll. Congress and the spies point fingers at each other over who is to blame.



**‘THE  
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STRESS.’**

MICHAEL HAYDEN,  
former head of  
the CIA and NSA

Hayden says the outcry that followed Snowden’s revelations showed that public support for American spies was already eroding. “What I discovered,” Hayden says, “is that the post-Watergate structure for gaining legitimacy from the American people was no longer adequate.” The programs Snowden revealed had been approved by the congressional committees, Clapper and Hayden agree. What had changed, says Hayden, was “a growing unwillingness of the American people to outsource this oversight and validation to their elected representatives.” Americans, he says, no longer trusted Congress to keep the spies in check.

Congressional critics see things differently. They argue that the extraordinary measures the CIA, NSA and others took after 9/11 to fight terrorism included evading congressional oversight, and so broke the post-Watergate compact. And they say both Clapper and Hayden bear some of the blame for the resulting loss of faith. In September 2006, Hayden first testified to the congressional oversight committees about the CIA’s “enhanced interrogation” program. A multiyear report by the Senate Intelligence Committee later concluded that the CIA had engaged in widespread torture, which is illegal, and that Hayden had misled the committees. Clapper, for his part, has been accused by Republicans and Democrats of lying about the extent of NSA surveillance under the Patriot Act.

Hayden says he should be given credit for the desire to bring the interrogation program before Congress. “I was doing the best I can with a complex program that I didn’t start or run,” he says. Clapper says he misunderstood a Senator’s question during testimony. “It was at the end of a 2½-hour threat hearing,” he says. “So, yes, I regret that. But it was a mistake, not a lie. There’s a big difference.”

What is clear in retrospect is that by 2016, Americans’ faith in their spies was shaky at best. Hayden and Clapper see that as the result of a larger crisis in America. Clapper argues in his book *Facts and Fears* that the expansion of economic inequality after the Cold War fueled what he calls “unpredictable instability” for many Americans. The financial crisis that began in 2007, he says, further drove resentment and distrust. In *The Assault on Intelligence*, Hayden says a combination of increased political polarization, fueled by the self-sorting world of the Internet, is what has brought us to this point.

But it was the Russian operation against the 2016 election that revealed the extent of the problem, Clapper and Hayden agree. “The Russians, to their credit, capitalized on the polarization and the schisms and the tribalisms in this



country,” says Clapper. By flooding social media with divisive propaganda and meddling with U.S. state and local election systems, the Russians undermined faith in the democratic process. “To me, the most damaging and threatening thing that they do is to cast doubt on what’s truth,” Clapper says. Moscow wins, he says, when people ask: “Is truth even knowable?”

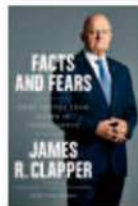
**TRUMP IS DOING THE SAME THING**, the former spy chiefs say. “We live in a post-truth environment,” says Hayden, “and he quite cleverly identified that as a candidate, and now he worsens it as President by some of what he does and a lot of what he says.” Trump’s rallies, says Clapper, “are really scary to me, because he goes so far afield of the truth.”

The two men are particularly aware of how Trump has undermined the intelligence community. As the Russian operation came to light during the campaign, Trump mercilessly attacked American spies and called into question their warnings. When it became clear that Russia had actively tried to help Trump win the election, he compared U.S. intelligence officials to Nazis. “He has besmirched the Intelligence community and the FBI—pillars of our country—and deliberately incited many Americans to lose faith and confidence in them,” Clapper writes.

More worrying, Clapper and Hayden say, is how Trump is undermining the very system of constraints that was instituted after Watergate to prevent abuse by the intelligence services. Among his most florid attacks was the false allegation that the Obama Administration illegally wiretapped Trump Tower during the election. In fact, the FBI legally obtained eavesdropping warrants from a special court that requires evidence that the target is acting on behalf of a foreign power.

The same goes for Trump’s latest “spygate” allegations. According to both Republicans and Democrats who have seen the intelligence on the matter, including House Republican Trey Gowdy of South Carolina, the spies complied with all the internal and external rules controlling how and when they can covertly investigate a political campaign. By undermining intelligence agencies that are complying with the rules, Trump is calling into question the rules themselves. “What we have is a President,” says Hayden, “attacking and undercutting the validity of institutions.”

Why would Trump make such a sustained, frontal assault on the legitimacy of the government? Perhaps because his own legitimacy is at stake. In his book, Clapper makes the provocative assertion that the Russian operation helped determine the outcome of the election. “Of course the Russian efforts affected the out-



**‘OF COURSE  
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THE ELECTION  
TO A TRUMP  
WIN.’**

JAMES CLAPPER,  
former Director of  
National Intelligence

come. Surprising even themselves, they swung the election to a Trump win. To conclude otherwise stretches logic, common sense, and credulity to the breaking point,” Clapper writes. “Less than eighty thousand votes in three key states swung the election. I have no doubt that more votes than that were influenced by this massive effort by the Russians.”

Whatever Trump’s reason for attacking America’s government, Hayden says the possible results are ominous. “[It] is not that civil war or societal collapse is necessarily imminent or inevitable here in America, but that the structures, processes and attitudes we rely on to prevent those kinds of occurrences are under stress,” Hayden writes. “I am saying that with full knowledge of other crises we have (successfully) faced. But there most often we argued over the values to be applied to objective reality ... not the existence or the relevance of objective reality itself.”

There is little question that Trump’s presidency has crippled the critical relationship between U.S. intelligence agencies and the congressional committees that oversee them. The arrangement hinges on both sides’ operating in good faith and above politics. In April, Republicans on the House Intelligence Committee published the findings of its investigation into Russian interference in the 2016 election. The report implicitly rejected the consensus among U.S. intelligence agencies that Moscow’s efforts were designed to boost Trump. Democrats on the panel panned the report’s conclusions and accused their GOP colleagues of abetting Trump’s effort to discredit investigators, including special counsel Robert Mueller. The distrust and partisan acrimony will be hard to repair.

The question is what to do now. The first thing, says Hayden, is to avoid self-inflicted wounds. Institutions that are designed to guard the public interest against the passing wiles of politicians “very often are tempted to break their own norms in pushing back against the norm-busting President,” says Hayden. That “is a really serious problem,” he argues, because it further erodes public faith in government.

Clapper prescribes more candor. After 9/11 and in the years before Trump’s election, the intelligence community was “not being sufficiently transparent and open,” he says. “So, lesson learned. Early communication and more transparency.”

America’s institutions have been tested before, and each time they have proved resilient. Despite the fears cataloged in their books, both Clapper and Hayden expect the pillars of U.S. democracy to survive the attacks by the President. One way or another, they will outlast Trump. □

# THE FUTURE OF FITNESS

**STREAMING WORKOUTS ARE GIVING TRADITIONAL GYMS A RUN FOR THEIR MONEY** BY LISA EADICICCO

WENDI WEINER LIKES TO START HER day with a workout. After waking up at 6:30 a.m., she has a quick breakfast with coffee and changes into a tank top and capris from Old Navy before taking a 45-minute cycling class. Weiner, a 40-year-old writer and attorney who lives in Florida, had a particularly memorable ride on a Friday morning this past January. The instructor blared Weiner's favorite songs and offered strong motivational cues to the entire class. Weiner watched the calorie count on her stationary bike skyrocket and found her name rising on the leaderboard that tracks participants' performances. As she stepped off the bike drenched in sweat, the "incredible" sense of pride she felt set the tone for the rest of her day.

That arc of accomplishment is precisely why many people pay hefty fees at boutique studios instead of exercising at traditional gyms. But Weiner wasn't at SoulCycle or Flywheel, two popular indoor-cycling studios with locations around the country. She was at home, in her dining room, cranking away on Peloton's high-end, high-tech stationary bike equipped with a massive 22-in. touchscreen positioned between the handlebars. The device streams live and on-

demand classes to hundreds of thousands of cyclists at home. After some debate, she purchased the bike last Thanksgiving weekend mostly for convenience's sake. "It's not the standard piece of gym equipment that [becomes] a clothes hanger and collects dust," Weiner says. "You feel like you're actually in the studio."

Becoming a "member," as Peloton's CEO John Foley refers to customers, isn't cheap. Bikes cost \$1,995, and if you want to ride along to classes, you have to pay a \$39 monthly fee. But that hasn't stopped the company, which was founded in 2012, from building a fervent following that includes ordinary folks like Weiner as well as celebrities like Leslie Jones and Kate Hudson. In fact, Peloton has been so successful that it's joined the unicorn club—a moniker given to startups valued at \$1 billion or higher—and in the fall, it will release a \$3,995 treadmill with an even larger touchscreen called the Tread.

Peloton is just one—albeit very popular—example of the latest revamp of the home gym, so crowded with the evidence of previous trends and the best intentions: old-school stationary bikes, treadmills and heavy bags. The bet this time is that the famously permeable interface between technology and

## THE CLASS

In New York City's Chelsea neighborhood, riders take live classes at Peloton's headquarters and compete for leaderboard dominance with participants at home







### THE SCREEN

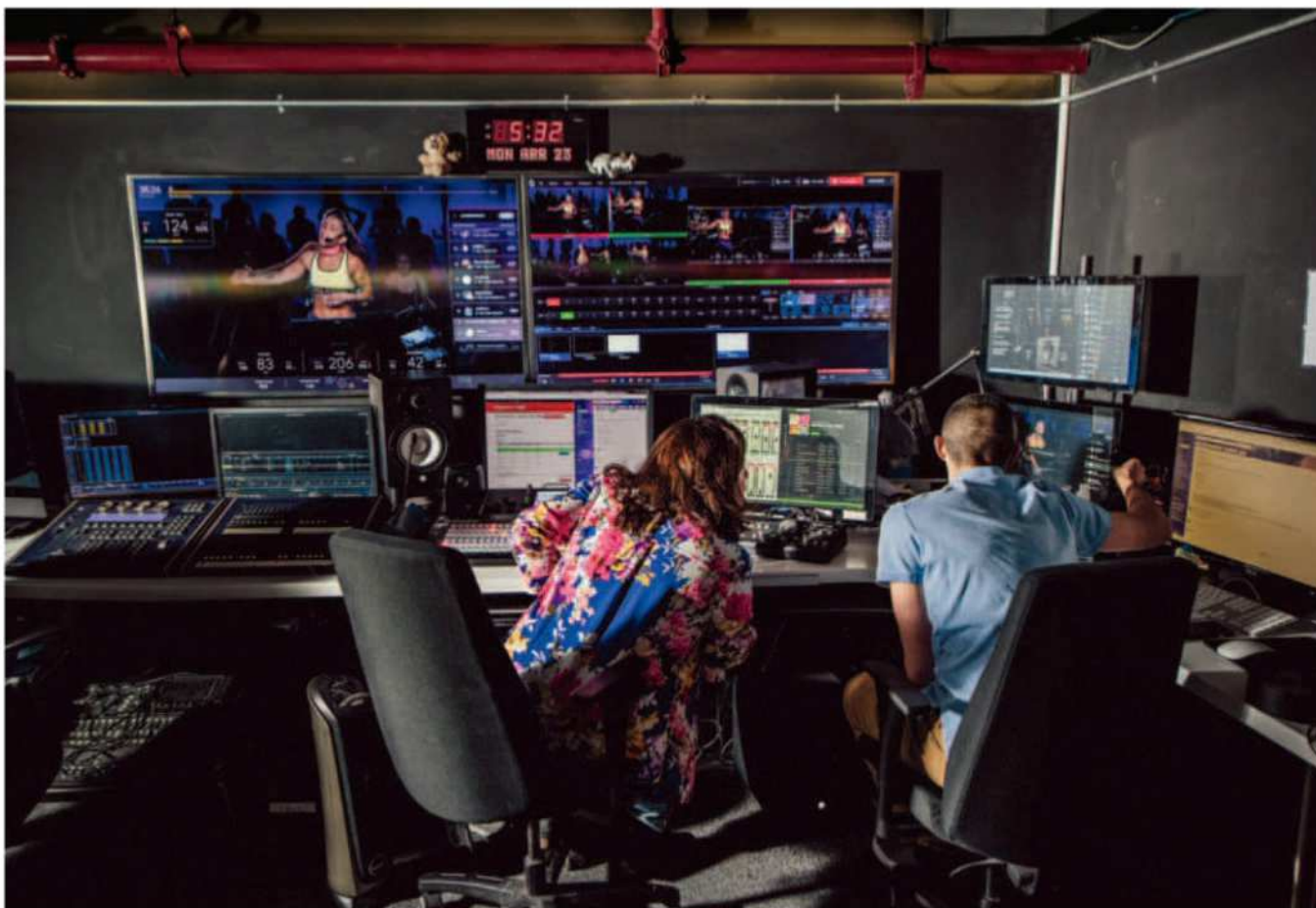
Thousands of riders at home can watch and access Arzon's and other Peloton instructors' classes from the bike's 22-in. HD touchscreen

*Robin Arzon, Peloton's VP of fitness programming, has a loyal following of fans on social media*

### THE EQUIPMENT

Peloton's bikes feature adjustable seats, handlebars and settings so that multiple family members can enjoy a customizable experience





↑  
Peloton's production technicians  
Samantha Pirrello, left, and Joe  
Palagonia edit a live stream  
of Arzon's cycling class in  
New York City for riders at home

human will goad fitness enthusiasts to forgo studios for workouts they can follow online. Fitness companies and exercise gurus have launched a wide range of at-home options, and most don't require large up-front costs. A business called FORTÉ films classes and streams them to smartphones, laptops and TVs for \$39 per month or \$288 per year. Training apps such as Booya Fitness and Beachbody have cultlike followings, and studios across the country from Nicole Winhoffer's NW Method in New York and Los Angeles to Mary Helen Bowers' New York-based Ballet Beautiful offer streaming and on-demand classes too. Even large apparel companies like Nike and gym chains like Gold's Gym have launched workout routines that play in the palm of your hand.

Some 82% of health-club clients also work out at home, and 63% of them do so using apps or other digital platforms, according to the International Health, Racquet and Sportsclub Association (IHRSA), citing data from workout provider Les Mills. The American College of Sports Medicine doesn't have exact figures on this rising movement yet, but its president Walter Thompson says, "Because the popularity of these programs

has increased, we can only assume that more people are actually using them."

As anyone who's ever owned a Tae Bo VHS knows, exercise fads can fade quickly. But if streaming workouts are in their infancy, they seem to have one thing going for them: ubiquity. For every glitzy option like Peloton, there's a dozen free or low-cost apps trying to do the same thing. And, if the true believers are to be believed, that could mean a revolution in the way we exercise.

**FIRST AMONG THOSE** true believers: the fitness trainers who have become social-media stars, thanks to the boom in at-home workouts. Part of the reason Weiner says she was able to push herself so hard during that workout in January was Robin Arzon, a popular Peloton trainer and the company's vice president of fitness programming. Arzon has more than 135,000 followers on Instagram and receives thousands of messages

from fans each week. "Whether it's a weight-loss journey, recovering from an illness or dealing with a divorce, the most impactful stories are when people rise above," Arzon says of her interactions with her followers. "And they use the bike and our instructors as tools for that."

Already famous health-and-wellness gurus have benefited too. Tracy Anderson, renowned for training celebrities, has established a particularly loyal following online, thanks to her streaming program TA Online Studio. Searching Instagram for #TArealtime results in tens of thousands of posts from devotees sharing their workouts. Although Anderson—who has over 350,000 followers on Instagram—may be best known for her high-end clubs in New York and California that cost \$900 to \$1,000 per month to join, she says her streaming services are the "most profitable revenue stream" of her business. "It's me doing the work that I do every day with a camera filming."

Social community is a large part of the reason Rachael Lawton, a 38-year-old finance director based in Columbus, Ohio, has been taking Anderson's classes virtually for almost a year. With two children and a full-time job, Lawton found that streaming made maintaining



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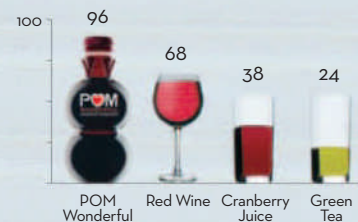
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# Health

a regular fitness routine feasible. She started sharing her workout experiences online to help other parents in similar situations. “They need to know that there is another mom out there that gets everything done and makes time to work out,” she says. “It is possible.”

Kayla Itsines of the SWEAT app has more than 9 million followers on Instagram. Like Peloton’s founders, she was one of the first to realize the potential of offering at-home workouts built around an online community. Her wildly popular Bikini Body Guide program, which costs \$19.99 per month, has catapulted Itsines to superstar status; she sold out a stadium with her live boot-camp workout session in 2016 and has released books based on her program. *Knocked Up* star Katherine Heigl praised the BBG program on Instagram for helping her get back into shape after giving birth in 2016. “I found a fantastic app called #sweat that features several different #bbg programs you can choose from and makes it incredibly easy to do anywhere, which for me means in my bedroom,” Heigl wrote.

**THAT WORKING OUT** at home is cheaper than signing up for a studio membership may be the most obvious benefit of streaming, besides convenience. On average, the monthly fees for fitness studios range between \$76.41 and \$118.13, according to the IHRSA. That’s why Foley doesn’t see his equipment as being unreasonably priced, especially if you’re splitting the costs with a spouse. Financing the Tread for \$150 per month, or \$110 if you already own a bike, plus the \$39 subscription fee for classes, breaks down to either \$74.50 or \$94.50 per person when split between two people. A single class at SoulCycle, for example, costs \$28 to \$40, depending on where you live. If you attend more than a few classes a week, the costs quickly surpass the monthly expense of owning a Peloton bike.

But those savings may come at a different cost, according to Josh Leve, founder and CEO of the Association of Fitness Studios, who says some aspects of studio

classes simply can’t be replicated digitally. “You lose that ability to really engage and speak with the [studio] owners and feel that sense of ‘Together we can accomplish anything,’” says Leve. “For some people [streaming classes] works incredibly well, but for so many others who crave that attention, it’s not a market for them.”

Lauren Kleban, the founder of LEKfit, a dance-inspired fitness method based in Los Angeles, started streaming classes in 2016 to reach more clients. Her studio



Camille MacFadyen follows along in her living room to Tracy Anderson’s weekly streaming workout class

counts *I Feel Pretty*’s Busy Philipps and *Shameless* star Emmy Rossum as fans, and scouring social media for #lekfit returns sweaty selfies from users at home. Kleban’s \$19.99-per-month service is so important to her business that her new flagship studio is being built with streaming in mind. “Everything will be designed around camera placement, client placement, and of course sound and lighting are playing an even bigger role than they would have normally,” she says. Still,

Kleban takes pains to make sure that she properly connects with her streamers by holding weekly Instagram chats and attempting to learn as many of their names as possible. “As an instructor, I was always taught that people want to be acknowledged for what they’re doing,” she says.

There are also safety concerns to consider when taking classes at home, since participants risk incurring injuries without a professional present to coach them on their form, Thompson warns. To avoid this, he suggests being cautious when choosing home workout programs. “Pick a class that’s appropriate for you, and make the changes as you go along,” he says. “Monitor yourself and make sure you’re physically capable of doing it.”

Those hoping to stay in shape on a budget also have an increasing number of options, due to the rise of budget gyms like the \$10-per-month Planet Fitness or Blink Fitness, which offers access to dozens of gyms for \$26 a month depending on the location. More than two-thirds of health-club members reported paying less than \$50 per month for memberships, according to the IHRSA’s most recent trend report.

Whether streaming becomes one of the ways—or even the main way—people work out remains to be seen. Fitness programs that surged in popularity—Zumba, Jazzercise, Buns of Steel—only to be unceremoniously replaced by the next hot trend abound. For

Thompson, the proliferation of streaming services is just the latest iteration of the at-home workout obsession started by actor turned fitness maven Jane Fonda and others. “We’ve kind of morphed into this contemporary delivery mechanism,” he says. “But it’s not a whole lot different than it was back in the 1970s and 1980s; it’s just now that we’ve got more access.” For many, services like those offered by Peloton, Anderson and Itsines may never fully replace a fitness-club membership or in-person classes. Foley, no surprise, has already deemed traditional workouts obsolete: “Going to the gym,” he says, “feels like such a dated concept.” □





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# Time Off



**STRIKE A POSE**  
Ryan Murphy's  
new series *Pose*  
puts a spotlight  
on queer culture  
in the 1980s

## INSIDE

A SAVAGELY FUNNY SHOW  
TACKLES THE BRUTALITY  
OF DIET CULTURE

TWO NEW NOVELS PAINT  
VIVID PORTRAITS OF WOMEN  
IN MIDDLE AGE

ENIGMATIC SINGER-  
SONGWRITER FATHER JOHN  
MISTY RETURNS TO MUSIC

PHOTOGRAPH BY PARI DUKOVIC



# TimeOff Opener

TELEVISION

## On *Pose*, the margins come to center stage

By Diana Tourjée

**I**N THE FIRST EPISODE OF *POSE*, THE NEWEST series from superproducer Ryan Murphy, a young black man, Damon (Ryan Jamaal Swain), is kicked out of his home after his parents discover gay pornography in his bedroom. Suddenly homeless, Damon makes a run for New York City, where he falls in with a group of gay and transgender people who have forged a tight-knit community. They're all looking for something universal, something that they find in one another: a family.

In the 1980s, while much of America was practicing the kind of "family values" espoused by conservative leaders like Ronald Reagan and Jerry Falwell, the counterculture was creating a very different kind of family—one not bonded by blood. That's what's at the heart of *Pose*, which follows a group of black queer Americans who have all, in one way or another, had to find a new community after losing their own, often by getting kicked out or disowned for their sexuality or gender expression. The show shines a light on a real but largely undocumented chapter in this country's history when young gay and transgender people of color fled to New York City to make new lives. Featuring

**'There are five trans women in the opening scene of *Pose*. We've never seen that before.'**

JANET MOCK, writer and transgender activist, speaking to the *New York Times*; Mock co-wrote and produced the show

the largest-ever cast of transgender actors, *Pose* applies classical narrative storytelling to nontraditional subject matter that was always considered too niche to carry its own production. You've never seen anything like it on television before.

**IN RECENT YEARS**, prestige TV has highlighted transgender characters in contemporary society, brought to life by both trans performers, like Laverne Cox's Sophia on *Orange Is the New Black*, as well as cisgender ones, like Jeffrey Tambor's Maura on *Transparent*. But *Pose*, created by Murphy and Steven Canals, shows the larger culture of the queer underground of the '80s, when trans people banded together in tight-knit groups they called "houses"—a term borrowed from the world of fashion. Each house was led by a "mother," or a transgender woman who took other young gay and trans people without families under her wing. *Pose* brings this to life as Blanca Evangelista (MJ Rodriguez) splits off from her domineering and



▲  
A queen in her castle: "Mother" Elektra Abundance (Dominique Jackson) takes no prisoners

imperious mother, Elektra Abundance (Dominique Jackson), to form her own house. Quickly, Blanca adopts Damon as well as Angel (Indya Moore), a sex worker caught in a romance with Stan (Evan Peters), a straitlaced Wall Street type. (In a wink to both the audience and the decadence of the era, Stan works at Trump Tower.)

Stepping into her own right as a mother, Blanca sets some rules: if you're going to be an Evangelista, you're not going to use drugs and you're going to get an education. It's just like any family in which mothers can be strict and the kids can be rebellious. But for people who have lost their blood family, this sense of community is essential.

On *Pose*, the characters attend "balls," or lavish, underground parties where members of competing houses dress up in elaborate costumes and walk a makeshift runway. They dress





## This decade in representation

The last few years have seen high-profile transgender characters on TV:



**UNIQUE ADAMS**  
**GLEE (2012)**

Actor and singer Alex Newell played Wade “Unique” Adams, a male-to-female transgender student, on *Glee*—also produced by Ryan Murphy.



**SOPHIA BURSET**  
**ORANGE IS THE NEW BLACK (2013)**

With this show, Laverne Cox became the first openly trans person to be nominated for a prime-time Emmy Award.



**MAURA PFEFFERMAN**  
**TRANSPARENT (2014)**

Jill Soloway's groundbreaking Amazon series starred Jeffrey Tambor as a trans woman.



**CAITLYN JENNER**  
**I AM CAIT (2015)**

Caitlyn Jenner's first years living openly as a trans woman were shown on this E! docuseries.

to a theme (like “*Dynasty*”) and the winner is whoever executes that theme with the most “realness.” Ball culture has been seen onscreen before, notably in the cult documentary *Paris Is Burning*, but *Pose* paints it at its most splendid and thrilling. It’s a stage for a work of satire: people rejected by society rendering an over-the-top world of their own. There, they aren’t just free; they belong.

**THE MOST REVOLUTIONARY** character on *Pose* might be Stan, a cis white male. He’s relatable to anyone who has followed a traditional American path of marriage (to a loving wife, Patty, played by Kate Mara), children and a white collar job. But Stan has a secret attraction to trans women, which is a story as old as transgender history: straight men have always secretly coveted, courted and sometimes destroyed the lives of the trans women

they don’t dare to love in public.

But it is the first time onscreen that a story like this has been told with nuance and understanding. Although the transgender movement has made major waves in Hollywood in the past several years, the men who love trans women have stayed mostly invisible. If they’re acknowledged at all, these men are written off as closeted gay men in the midst of a sexual identity crisis. Yet it’s widely known in the trans community that men who love trans women are often straight, and they exist within every strata of American society. A character like Stan, a polished businessman picking up a trans sex worker, is all too familiar to many trans people. His story is nearly as brutal as theirs.

In a life that has all but been programmed for him, Stan finds himself disillusioned with a trajectory that he isn’t sure he ever chose. His colleagues seem to read from a script; buying his wife a dishwasher becomes a crisis of identity. Who is he? Living by the playbook ultimately leads him to seek out the taboo subject of his desire, and through his complicated relationship with Angel, he finds that she is more authentic than anything else in his life. He’s hungry for something that his picturesque suburban life can’t give him: something real.

This juxtaposition of what’s real and what’s a performance is part of what makes *Pose* so successful. Without boring the viewer to death with heavy-handed political arguments, it shows the humanity that connects all kinds of people—and how we all end up performing. Straight white society becomes a caricature to black homeless LGBTQ youth who re-create the world from which they’ve been exiled. These kids who are criminalized and demonized for wearing drag, or trying to change their gender, readily point a perfectly lacquered finger at the fact that all the world’s a stage. Their conservative critics—the people walking Madison Avenue, or the parents who threw them out because they didn’t wear the right clothes or act the right way—are in their own form of drag.

# TimeOff Reviews

## TELEVISION

### Female rage reaches a boiling point on TV

By Eliana Dockterman

AMC'S NEW SERIES *DIETLAND* BEGINS WITH A montage of self-harm: One woman sticks her finger down her throat. Another braces for a laser trained on her cheek. A third carefully slices open her breast with a razor. In a voice-over, they read their emails to a high-powered editor of a fictional women's magazine pleading for advice: "Dear Kitty, I'm ready to kill myself—or maybe somebody else."

But Kitty (Julianna Margulies) doesn't answer their letters. Rather, a ghostwriter named Plum (Joy Nash), herself plagued by self-loathing and saving up for a dangerous weight-loss surgery, writes back. Plum's increasingly political emails attract the attention of a terrorist group called Jennifer, which kills rapists and dumps their bodies off buildings and bridges. This radical group wants to fight not just the men who hurt women physically, but also the institutions that scar women psychologically. Jennifer taps Plum to infiltrate the toxic world of fashion magazines.

*Dietland* felt like fantasy when the best-selling book, written by Sarai Walker, was published in 2015. But it won't feel nearly as farfetched when the show premieres on June 4. The series takes the #MeToo movement to its most violent extreme. To viewers, women donning witches' masks and forcing rapists to read confessions on camera may feel empowering—if more than a little scary.

Just a few years ago, this show never would have been made. But righteous female rage on television, which had been simmering, has now reached a boiling point. On Netflix's *Dear White People*, college-radio DJ Sam (Logan Browning) airs her grievances about white male privilege. On NBC's *Good Girls*, three suburban moms tie up a would-be rapist and leave him in a tree house. On HBO's *Westworld*, female androids gain sentience and aim their guns at the humans who abused them. On Hulu's dystopian *Handmaid's Tale*, June (Elisabeth Moss) burns the conservative red robes that identified her as a sex slave. *Dietland* is only the latest, and most outrageous, revenge fantasy to storm the small screen.

**FOR YEARS** the Tony Sopranos and Walter Whites of TV expressed their rage in egotistical outbursts: "I'm the one who knocks." But these women, having learned to suffer in silence, approach revenge more stoically. *Westworld*'s Thandie Newton maintains a serene stare even as the blood of the men she murders spatters on her face. On *The Handmaid's Tale*, Elisabeth Moss gives a



↑  
*Dietland's Nash and Margulies join a host of women unleashing their pent-up fury on the small screen*

rebellious smirk under her bonnet.

Historically, these women flew solo. The women of *Desperate Housewives* bickered with one another, while the female lawyers of *The Good Wife* feuded in order to protect their cheating husbands. But now they're beginning to unite. On *Dear White People*, frenemies Sam and Coco (Antoinette Robertson) join together to make change on campus when one of their male counterparts fails to move the needle. When *Good Girls*' Ruby (Retta) accidentally shoots a bad guy, her friends rush to her aid.

Even *Dietland* villain Kitty—who runs a beauty empire built on women's insecurities and pays for a photographer's legal fees when he's accused of rape—finds commonality in her resentment. She must stay thin and young-looking, while her male colleagues can grow fat and bald in peace. When guerrilla group Jennifer kills that predatory photographer, Kitty can't help but laugh.

But as satisfying as watching this moment play out in media might feel for women who have been subjugated and abused, the consequences can be jarring. Male superheroes casually destroy entire cities and never bother to examine the damage. But when women, conditioned by society to play nice and care for others, are the perpetrators of violence—no matter how justified—it's still shocking. In time, female antiheroes may become the norm, but for now *Dietland* and other shows of its ilk feel audacious. It's enough to make you wonder what will come next—onscreen and off. □

PHOTO: ILLUSTRATION BY GUEMIT FOR TIME; DEAR WHITE PEOPLE: NETFLIX; WESTWORLD: HBO; THE HANDMAID'S TALE: HULU; GOOD GIRLS: NBC; DIETLAND (2): AMC



FICTION

# 15 years later, just as much fashion—but more friendship

By Bethanne Patrick

IN 2002 AND 2003, ALLISON PEARSON and Lauren Weisberger released novels that shook the lives of women privileged enough to aspire to, well, more privilege.

*I Don't Know How She Does It* was Pearson's paean to harried working mothers, with her protagonist Kate Reddy standing in for every woman who has ever tried to juggle three dozen bake-sale cupcakes while clutching a briefcase and teetering on stilettos. Weisberger used the work woes she experienced at *Vogue* to fashion a monstrous editor in chief for *The Devil Wears Prada*. Imperious Miranda Priestly, immortalized by a steely-eyed Meryl Streep in the 2006 film adaptation, suffers no fools—especially those wearing the wrong shade of blue.

Both authors return with follow-up titles on June 5. Pearson's *How Hard Can It Be?* finds Kate ready to re-enter the workforce after nearly a decade at home with her children; Weisberger's *When Life Gives You Lululemons* centers not on *The Devil Wears Prada*'s Andrea Sachs but instead on her colleague Emily Charlton (Emily Blunt's delightfully icy character in the

movie). Emily, now a celebrity image consultant, returns to the East Coast from Los Angeles only to discover that a younger set is primed to take over, and she needs to get hip—fast.

**THE NEW NOVELS**, departing from an era in which so-called chick lit so often reinforced gender stereotypes, prove more adept at framing individual women as whole and human than the previous books were. Each story picks up on a female character 15 years after her last appearance and shows

Pearson's and Weisberger's next installments will each come out on June 5



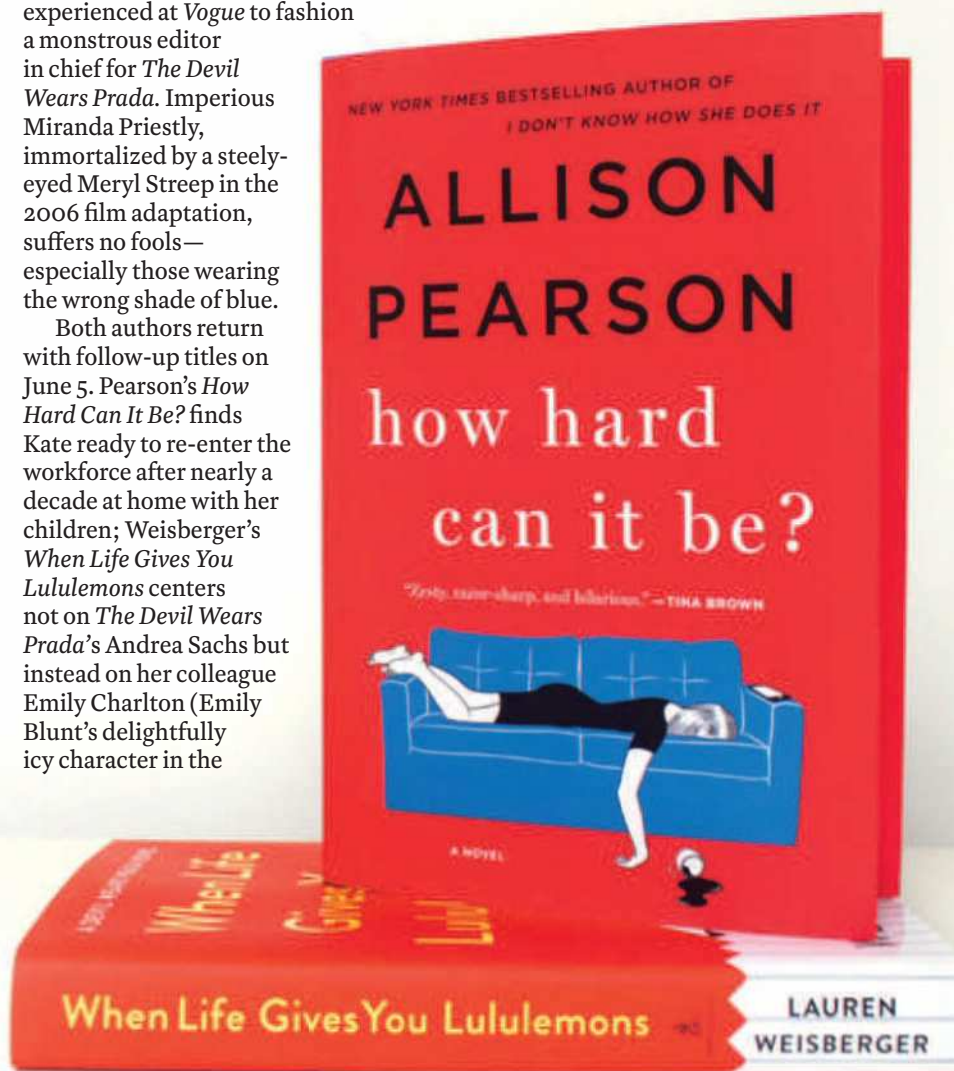
her coping with changes at work and at home. A funny thing happened on the way to 2018: the way Kate and Emily look at the other women in their lives has changed. At the turn of the millennium, other women formed the competition. “I already understood that the world of women was divided into two,” Kate lamented then, “there were proper mothers . . . and there were the other sort.” She guiltily considered herself the latter. Emily, tormented by Miranda, used to torment Andrea in turn, piling on demeaning tasks and sneaky insults, certain that she would never need anyone's help.

Now Kate and Emily are 50 and 36, respectively. Kate remains frazzled by her children's demands, and Emily still wants to look great in a designer bikini. But as they navigate life in their new age groups, both discover solidarity with other women in a way they did not in the original books.

Kate rediscovers her neglected girlfriends as they face the struggles that come with late middle age (including everything from body sags to elder-care nags). Emily unclenches her judgment muscles to bond with a “frumpy” lawyer turned stay-at-home mom who begs for help with another woman's PR crisis.

That these books are hugely entertaining cannot be assumed—but they are. Pearson and Weisberger know their characters and audiences so well that even their worst jokes elicit chuckles. Of a neutral-toned family room in *When Life Gives You Lululemons*, Weisberger writes, “It's like fifty shades of gray without the S and M.” Add laughs to all the warm-and-fuzzy female solidarity and it makes for a pretty great time.

There's just one glaring problem: in these books, it's as if London and Greenwich, Conn., are inhabited only by the white and well-to-do. One might hope the next time we see Kate and Emily, their worlds will have expanded, or they will have passed the torch to a new set of put-upon but persevering protagonists—with different backgrounds. I could spend all day imagining titles for more inclusive sequels, like *Is That Too Much to Ask?* □





*As Father John Misty, Tillman has earned a cult following*

## MUSIC

### Father John Misty's old quirks get new heart

By Mike Ayers

IN THE PAST SEVERAL YEARS, JOSH Tillman, the singer-songwriter who performs as Father John Misty, has cryptically linked himself to the disappearance of a valuable crystal from a wellness store in Los Angeles, briefly feuded with singer-songwriter Ryan Adams and said he micro-doses LSD as a treatment for anxiety and depression. Around the same time, he also wrote and recorded his acclaimed third solo album, *Pure Comedy*, a grandiose collection of songs that were self-deprecating, weird (he sings about “bedding” Taylor Swift in a VR simulation) and, at times, beautiful. Now, just a little over a year since its release, he returns with *God’s Favorite Customer*, a lean 10-song album he recorded just after the release of *Pure Comedy*.

Tillman’s style has always been both introspective and ironic; his songs wrestle with his ability to be self-aware in an era defined by oversharing. But *God’s Favorite Customer* finds Tillman

at his most earnest. At times he’s still playful, like on the upbeat, folk-rock number “Mr. Tillman,” in which he details checking into a hotel, running into singer-songwriter Jason Isbell and getting chastised for habitually sleeping on the balcony.

But a few songs later, on “Please Don’t Die,” Tillman is on the brink of collapse. It doesn’t sound like a joke: “One more cryptic message thinking that I might end it/ Oh God, you must have woken up to me saying that it’s all too much/ I’ll take it easy with the morbid stuff.” On “The Songwriter,” he turns the table on the listener, or the critic, solemnly asking “What would it sound like if you were the songwriter/ And you made your living off of me?” Still, he’s more wry than fully emo: “Last night I wrote a poem,” he sings on “The Palace,” a poignant tune. “Man, I must’ve been in the poem zone.” Poem zone, indeed.

As prolific as Tillman has been, he’s remained surprising and tough to pin down; at times his cult of personality has run the risk of overwhelming his talents. But on this album the biggest surprise is discovering just how tender he can be. You don’t have to be in on the joke to appreciate it. □



#### BEAT OF HIS OWN DRUM

Father John Misty was previously the drummer in the rock outfit Fleet Foxes.

## POP CHART

### TIME’S WEEKLY TAKE ON WHAT POPPED IN CULTURE

A team of scientists attempting to measure dolphin happiness for the first time has determined that in captivity, the **marine mammals are in their best spirits when spending time with a familiar human.**



Korean boy band BTS made history as the **first K-pop group to top the U.S. charts** after its new album, *Love Yourself: Tear*, hit No. 1 on the *Billboard* 200.

## LOVE IT LEAVE IT

The nonprofit behind Sesame Street is **suing the creators of Melissa McCarthy’s upcoming movie** *The Happytime Murders* for referencing its show in the marketing campaign for the raunchy puppet comedy.

Luxury fashion brand Balenciaga **debuted a \$1,290 men’s T-shirt** with a long-sleeved button-down shirt attached to the front of it.





# Anxiety. It's not weird between friends.

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Maybe you feel like something's gnawing at you. Endless negative thoughts and worries that dig in and just won't let go. And you might feel like that's too weird to talk about. But chances are, your friends won't find it weird at all. They might even be going through something similar. Bring Change to Mind can help you start the conversation. Find out more at [BringChangeToMind.org](https://bringchangetomind.org).

let's talk mental health



# 9 Questions

**Richard Rhodes** The Pulitzer Prize–winning author on climate change, nuclear power and his new book, *Energy: A Human History*

**W**hy is now the time to write a history of energy? We are undergoing probably the largest energy transition in human history. We are facing the need to decarbonize our entire energy supply. And no one seems quite prepared to take it seriously.

**Your book recounts multiple energy transitions and calls the current move away from fossil fuels the “ultimate transition.” How is it different?** Beginning in the 1950s, the effects of human activity on the environment began to be global rather than local. Before, there was a differential from place to place, and the effects of various energy sources weren’t international. The effects of our human activities are affecting the entire planet.

**What does this difference mean for how the transition is experienced by everyday people?** It’s a bit like putting the frog in the hot water. It’s hard to see this change coming. It creeps in around the edges.

**Do the past energy transitions you write about suggest we should be able to transition again?** Fundamentally, when people have to use new kinds of energy, they resist it. To the extent people are capable of opening up their minds to new kinds of energy, we’ll be better off. I wanted to cover so much ground, to open up the conversation again and to look at how people have managed these changes before. But the human species has always been a clever little species. I can’t believe we won’t work our way through this one, but we’re going to have to get on our horses and get riding.

**You say in the book that you don’t advocate any one particular solution, but you must have a sense of what you think the solution should be, right?** We have to turn to

“IT’S A BIT LIKE PUTTING THE FROG IN HOT WATER. IT’S HARD TO SEE THIS CHANGE COMING”



sources that don’t produce carbon. That means renewables. But we’re going to need to use everything we’ve got, and in particular nuclear power.

**You have advocated for nuclear energy for some time now, but you weren’t always a supporter. What changed?** I changed my mind because people I respect deeply as scientists and moral human beings taught me that nuclear power was an important new source of energy, with the caveats that are there for any source of energy.

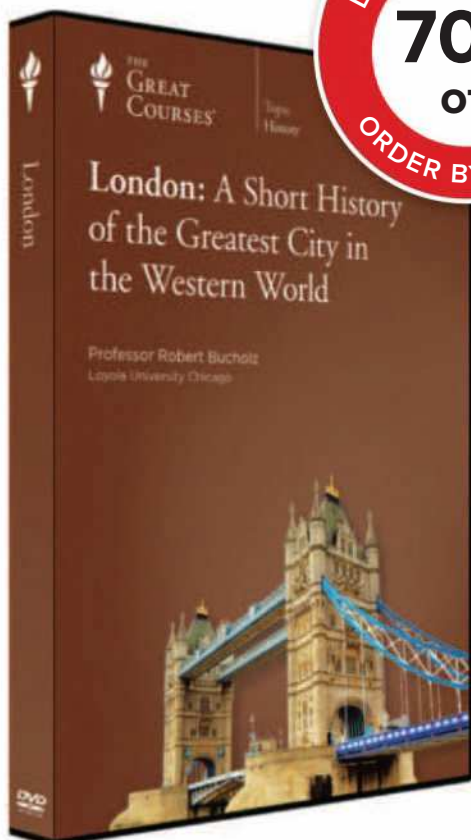
**Have you noticed a change in public opinion in recent decades?** Yes, and it’s changed for the better. But [nuclear energy] has become such a divisive issue—and not for the best of reasons.

**In your book, you deal extensively with one of those reasons. Namely: fears that nuclear power could support overpopulation. What was your reaction to that?** I was appalled. Nuclear got a bad reputation among those who thought that helping out the starving millions and billions of people in Asia would just prolong the agony. It was an incredibly anti-human response. That really was the early years of the environmental movement—however well-meaning it came to be. It got a bad rep because it promised to power the teeming millions.

**Has the current political climate made it difficult to deal realistically with the energy transition?** One of the real tragedies right now is that the two parties have lined up along the lines of the robust basic energy sources vs. renewables. It makes it harder to have a discussion based on reality, rather than political gains. Nuclear power is one of the first energy sources to be radically delayed by politics.

—JUSTIN WORLAND





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